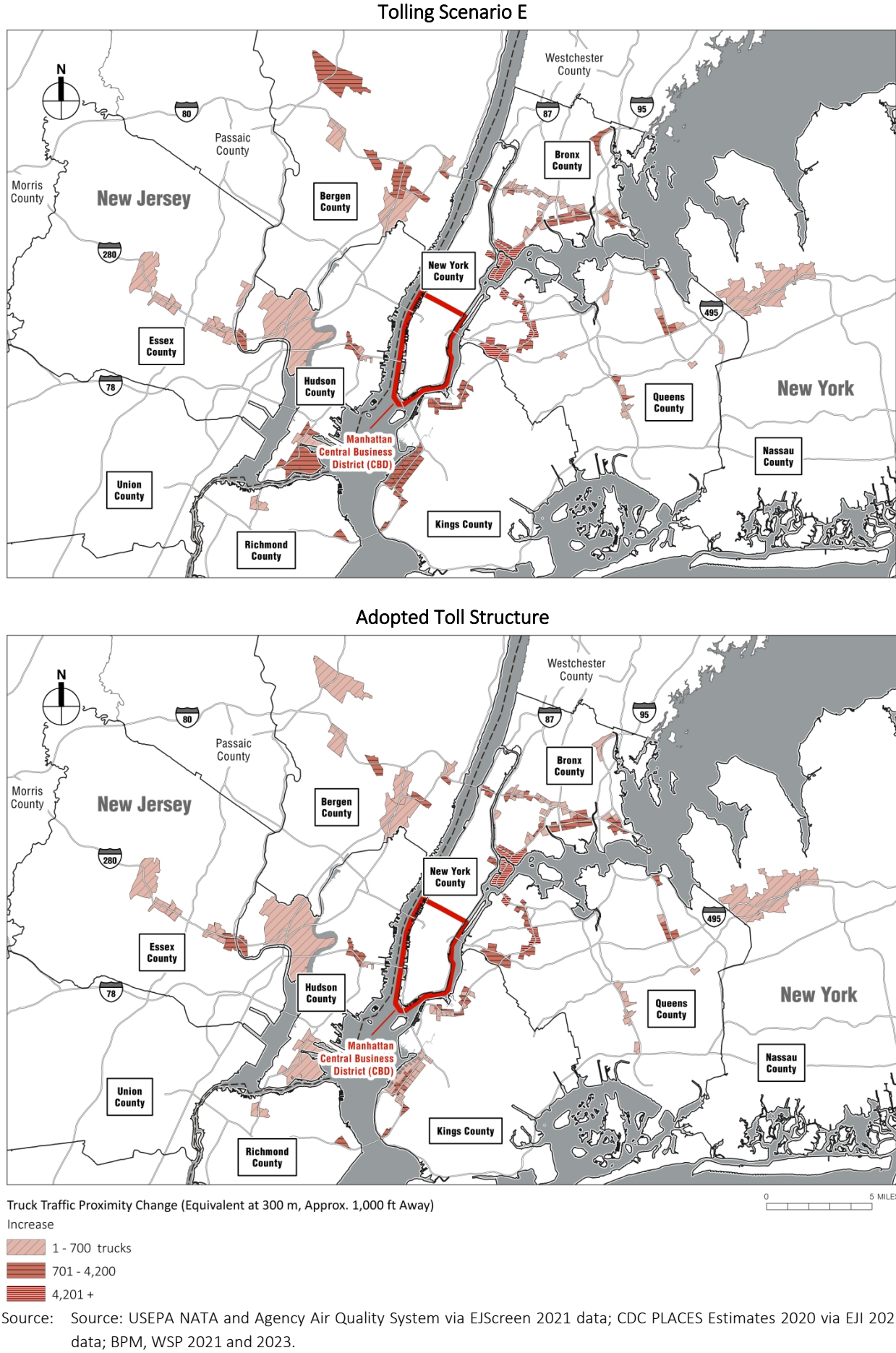


Figure 17.2. Environmental Justice Census Tracts with Either Pre-Existing Pollutant Indicators or Pre-Existing Chronic-Disease Indicators At or Above the 90th Percentile That Could Experience Truck Traffic Increases



- **Location of Tracts and Communities with Potential Truck Traffic Effects:** The adopted toll structure would have small differences in the tracts and communities where potential truck diversion effects would occur from those described in the Final EA, as summarized in **Table 17.6**.
  - Three new “90 or 90” tracts with potential truck traffic proximity decreases in communities already identified with potential truck traffic proximity decreases (included in **Table 17.5**).
  - Three new “90 or 90” communities identified with potential truck traffic proximity decreases (Bayside—Little Neck and Long Island City—Astoria, Queens County; Belleville, Essex County; see **Table 17.5**, which is a modification of Final EA Table 17D-14 with the adopted toll structure added), and one community identified for potential truck traffic proximity decreases under Scenario E but not under the adopted toll structure (Downtown—Heights—Slope/Park Slope, Kings County; removed from Table 17D-14 in **Table 17.5**).
  - Three new tracts in “90 or 90” communities with potential truck traffic proximity increases (as highlighted in **Table 17.7** and identified in **Figure 17.3**). In these tracts, modeling indicates potential truck traffic proximity increases ranging from 0.69 to 1.05 daily trucks per meter distance. These values are well below the average increase of 4.99 daily trucks per meter distance under the adopted toll structure among “90 or 90” tracts with potential increases. These values are also well below the average 7.50 increase among “90 or 90” tracts under Final EA Scenario E. These three tracts would benefit from the regional mitigation measures of expanding the NYC Clean Trucks and NYCDOT Off-Hours Delivery Programs. Note that these three new “90 or 90” tracts include the new “90 and 90” tract in High Bridge—Morrisania.
  - One less “90 or 90” community identified for regional mitigation (Ridgewood—Forest Hills, Queens County, identified in **Figure 17.3**). **Table 17.8**, below, is a modified version of Final EA Table 17D-15 that describes the communities identified for regional mitigation with the adopted toll structure added.
  - One new “90 and 90” tract within the already identified High Bridge—Morrisania, Bronx County community identified for place-based mitigation (highlighted in **Table 17.7**, and included in **Table 17.9** as well as in **Figure 17.4**, which is an updated version of Final EA Figure 17D-18 reflecting the adopted toll structure).
  - No new “90 and 90” communities identified for place-based mitigation (as illustrated in **Table 17.9** with the adopted toll structure added, below).
  - In the Final EA, Tables 17D-14, 17D-15, and 17D-17 depicted the baseline numbers of trucks traveling through or adjacent to these communities by including estimates of pre-existing truck average annual daily traffic volumes (AADT) on some highways, as examples, under the No Action Alternative. The tables also described the potential change in truck volumes under Tolling Scenario E, and the percentage change of the AADT. The versions of those tables below (**Table 17.5**,

Table 17.8, and Table 17.9, with the adopted toll structure added) present these truck-volume data as well.<sup>14</sup>

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<sup>14</sup> As noted in the Final EA, Appendix 17D, Section 17D-6.1.4., in some cases, nearby roadways will show decreases in truck AADT when truck traffic proximity increases, and vice versa. This occurs because of the distance weighting that is part of calculating changes in truck traffic proximity. A nearby roadway may show a net increase in truck traffic AADT, but the center of a census tract's population may be closer to a portion of the roadway with estimated decreases in truck volumes, meaning that exposure to emissions and truck traffic proximity decreases (footnote 102, p. 17D-50).

**Table 17.5 - Modified Final EA Table 17D-14. Environmental Justice Tracts and Communities That Could Experience Truck Traffic Proximity Decreases (Tolling Scenario E), With the Adopted Toll Structure ("90 or 90" Tracts and Communities)**

COUNTY	COMMUNITY	NUMBER OF TRACTS BY NUMBER OF POLLUTANT OR CHRONIC DISEASE BURDENS (90 <sup>TH</sup> PERCENTILE)		HIGHWAY	DAILY TRUCK VOLUME					
		FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
					NO ACTION (AADT)*	CHANGE (AADT)	CHANGE (%)	NO ACTION (AADT)*	CHANGE (AADT)	CHANGE (%)
Bronx, NY	Crotona–Tremont	5	5	Major Deegan Expwy	15,042	-643	-4%	15,042	-372	-2%
	Fordham–Bronx Park	1	1	Major Deegan Expwy	15,024	-686	-5%	15,024	-414	-3%
	High Bridge–Morrisania	3	2	Major Deegan Expwy	11,872	-165	-1%	11,803	-195	-2%
	Hunts Point–Mott Haven**	1	1	Bruckner Expwy	5,624	277	5%	5,624	263	5%
	Kingsbridge–Riverdale	7	7	Major Deegan Expwy	14,679	-595	-4%	14,679	-331	-2%
Kings, NY	Borough Park***	1	1	Ocean Pkwy	5,689	-11	-0.2%	5,689	64	1%
New York, NY	Chelsea–Clinton	1	1	Lincoln Tunnel	2,069	-155	-7%	2,069	-273	-13%
Queens, NY	Bayside–Little Neck		1	Long Island Expwy	Community does not have tracts with potential truck-traffic decreases adjacent to Long Island Expwy			18,049	-2	-0.01%
	Flushing–Clearview†	2	3	Long Island Expwy	11,340	-290	-3%	11,340	-371	-3%
				Whitestone Expwy	Community does not have tracts with potential truck-traffic decreases adjacent to Whitestone Expwy			7,929	174	2%
	Fresh Meadows	2	2	Long Island Expwy	11,542	-283	-2%	11,542	-357	-3%
	Jamaica	2	2	Van Wyck Expwy	7,487	-104	-1%	7,487	-60	-1%
	Long Island City–Astoria		1	Brooklyn Queens Expwy	Community does not have tracts with potential truck-traffic decreases adjacent to Brooklyn Queens Expwy			9,634	1,293	13%

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COUNTY	COMMUNITY	NUMBER OF TRACTS BY NUMBER OF POLLUTANT OR CHRONIC DISEASE BURDENS (90 <sup>TH</sup> PERCENTILE)		HIGHWAY	DAILY TRUCK VOLUME					
		FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
					NO ACTION (AADT)*	CHANGE (AADT)	CHANGE (%)	NO ACTION (AADT)*	CHANGE (AADT)	CHANGE (%)
				Long Island Expwy	Community does not have tracts with potential truck-traffic decreases adjacent to Long Island Expwy			3,115	-157	-5%
	Ridgewood–Forest Hills	5	6	Long Island Expwy	12,250	-153	-1%	12,250	-339	-3%
	Southwest Queens	2	1	Van Wyck Expwy	5,039	-102	-2%	7,049	-132	-2%
	West Queens	6	6	Brooklyn Queens Expwy East	2,303	-64	-3%	2,303	-28	-1%
				Long Island Expwy	12,443	-170	-1%	12,443	-338	-3%
Essex, NJ	Belleville		1	McCarter Hwy (NJ Rt 21)	Community does not have tracts with potential truck-traffic decreases adjacent to McCarter Hwy			5,499	-4	-0.1%
	Newark	9	10	I-78	13,535	-547	-4%	13,535	-425	-3%
				I-95	12,573	-124	-1%	12,573	-25	-0.2%
				McCarter Hwy	5,154	-23	-0.4%	5,168	-16	-0.3%
				US 1-9	7,274	-30	-0.4%	7,274	-74	-1%
				US 22	5,018	-24	-0.5%	5,018	-31	-1%
Hudson, NJ	Jersey City	2	2	I-78	1,538	-580	-38%	1,538	-361	-23%
				Pulaski Skwy	4,622	-142	-3%	4,622	-5	-0.1%
	Union City	3	3	NJ 495	7,813	-703	-9%	7,813	-863	-11%
Union, NJ	Union	2	2	I-78	8,569	-310	-4%	8,569	-239	-3%
				US 22	4,289	-1	-0.03%	4,289	-3	-0.1%
Nassau, NY	Hempstead	1	1	Nassau Expwy	1,708	-2	-0.1%	1,708	-1	-0.1%

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Source: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

Notes:

Results are not shown for Downtown–Heights–Slope (Park Slope) because no tracts with potential truck-traffic proximity decreases appeared in this community under the adopted toll structure.

\* In some cases, specific tracts with potential traffic increases along a certain highway and within a community and differ between Scenario E, Scenario G, and the adopted toll structure. In these cases, the “No Action” AADT will differ because the section of the highway analyzed differs.

\*\* Under Tolling Scenario E (as noted in Final EA Table 17D-14) as well as the adopted toll structure, truck traffic proximity is predicted to decrease in Census Tract 27.02, Bronx County, even though AADT on this highway shows a net increase. The center of the tract's population is near a portion of the highway where modeling indicates that truck traffic could decrease.

\*\*\* Under the adopted toll structure, Truck traffic proximity decreases in Census Tract 494, Kings County, even though AADT on this highway shows a net increase. Though the highway adjacent to the tract is predicted to see increases in truck traffic, the center of the tract's population is near a portion of the highway where modeling indicates that truck traffic could decrease.

† Under the adopted toll structure, Truck traffic proximity decreases in Census Tract 889.01, Queens County, even though AADT on the Whitestone Expwy shows a net increase. The center of the tract's population is near a portion of the highway where modeling indicates that truck traffic could decrease.

**Table 17.6 - Summary of Environmental Justice Tracts and Communities That May Need Mitigation (Tolling Scenario E), with the Adopted Toll Structure**

TOPIC	LOCATION	DATA SHOWN IN TABLE	FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE
Increases in truck traffic, as a result of traffic diversions, in communities already overburdened by preexisting air pollution and chronic diseases	<b>90 AND 90 (Place-Based)</b>	<b>Total Communities</b>	<b>13*</b>	<b>13*</b>
		<b>Total Tracts</b> (Black indicates new tracts in already-identified communities, grey in parentheses are tracts that were removed compared to the Final EA)	<b>55</b>	<b>56</b> 1 additional tract in High Bridge-Morrisania, Bronx, NY
		<b>Communities Added (Relative to Final EA Tolling Scenario E)</b>	--	none
		<b>Communities Removed (Relative to Final EA Tolling Scenario E)</b>	--	none
Increases in truck traffic, as a result of traffic diversions, in communities already overburdened by preexisting air pollution and chronic diseases	<b>90 OR 90 (Regional)</b>	<b>Total Communities</b>	<b>38</b>	<b>37</b>
		<b>Total Tracts</b> (Black indicates new tracts in already-identified communities, grey in parentheses are tracts that were removed compared to the Final EA)	<b>154</b>	<b>151</b> 1 additional tract in High Bridge-Morrisania, Bronx, NY (same as "90 AND 90" tract above) 1 additional tract in Downtown Brooklyn-Fort Greene / Downtown-Heights-Slope, Kings, NY 1 additional tract in Southwest Queens, Queens, NY (1 less tract in Bayside-Little Neck, Queens, NY) (1 less tract in Flushing-Clearview, Queens, NY) (1 less tract in Long Island City-Astoria, Queens, NY) (1 less tract in Ridgewood-Forest Hills, Queens) (1 less tract in Southeast Queens, Queens, NY) (1 less tract in Newark, Essex, NJ)
		<b>Communities Added (Relative to Final EA Tolling Scenario E)</b>	--	none
		<b>Communities Removed (Relative to Final EA Tolling Scenario E)</b>	--	<b>1</b> (Ridgewood-Forest Hills, Queens, NY is removed)

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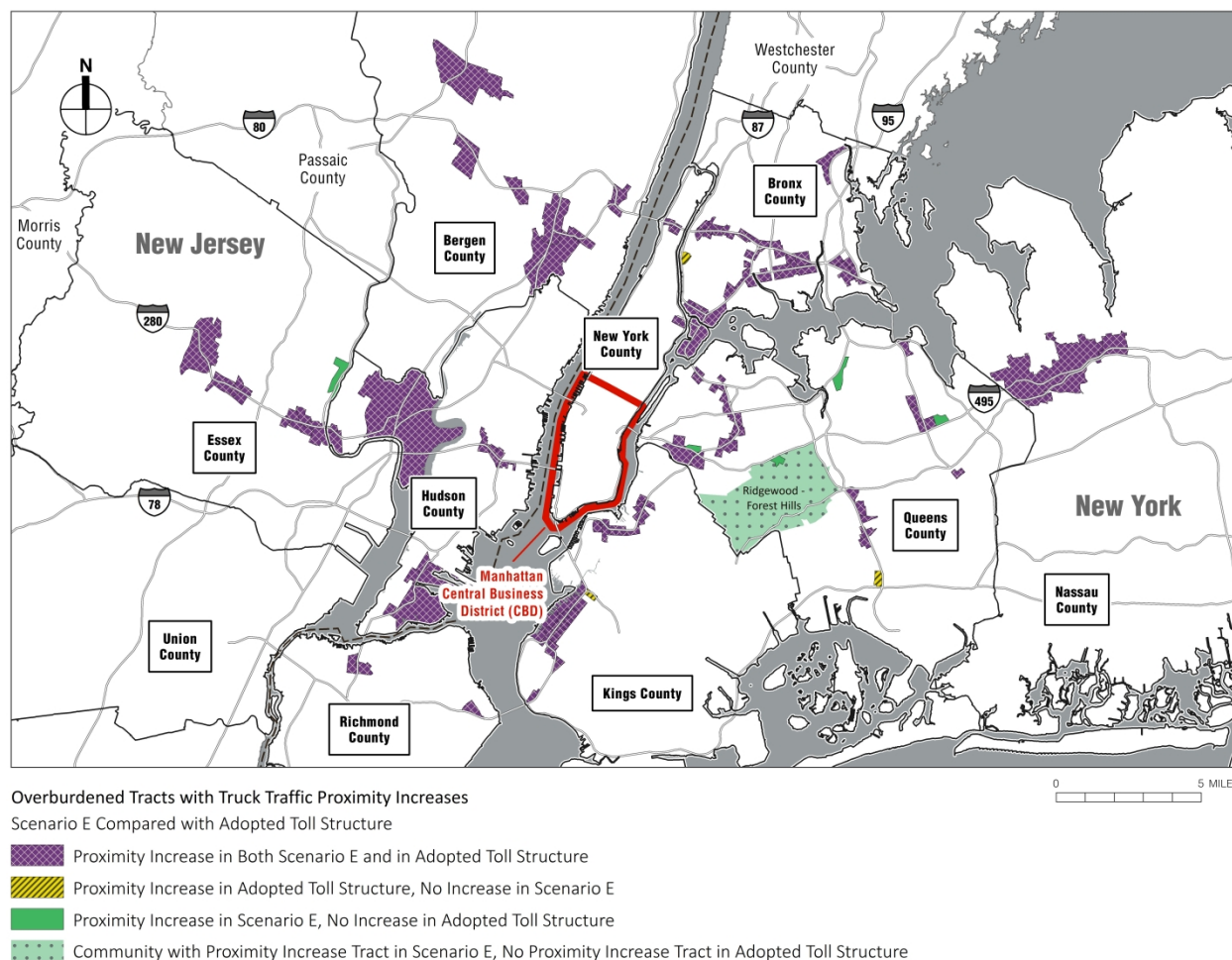
Source: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

Notes:

This table summarizes results analogous to those found in Final EA Tables 17D-15 and 17D-17 in Appendix 17D. Detailed versions of those tables with the adopted toll structure added are provided later in this section of the reevaluation.

\* Final EA Table 17D-17 for Tolling Scenario E grouped the 13 identified communities into 11 table rows: High Bridge – Morrisania was grouped with “Crotona–Tremont” in one line because tracts in both communities would have potential effects from truck traffic on the Cross Bronx Expressway. Hunts Point–Mott Haven and Pelham–Throgs Neck were also grouped in one line because tracts in both communities would have potential effects from truck traffic on the Bruckner Expressway. City of Orange, East Orange, and Newark were also grouped in one line because tracts in these three communities would have potential effects from truck traffic on I-280. Finally, Table 17D-17 did not show Tract 3009 in North Hempstead, Nassau County. As noted, “[p]otential truck volume increases and decreases on roadways within the tract would ultimately cancel each other out and result in no change of truck traffic proximity for the residential populations within the tract.”

Figure 17.3. “90 or 90” Environmental Justice Census Tracts and Communities That Could Experience Truck Traffic Increases, Tolling Scenario E Compared with the Adopted Toll Structure



Source: USEPA NATA and Agency Air Quality System via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

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**Table 17.7 - Modified Final EA Table 17D-15. Environmental Justice Tracts and Communities That May Need Mitigation (Tolling Scenario E), With the Adopted Toll Structure ("90 or 90" Tracts and Communities)**

COUNTY	COMMUNITY	NO. OF TRACTS WITH AT LEAST ONE PRE-EXISTING POLLUTANT OR CHRONIC DISEASE BURDEN (90 <sup>TH</sup> PERCENTILE)		HIGHWAY	DAILY TRUCK VOLUME					
		FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
					NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)	NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)
Bronx, NY	Crotona–Tremont	16	16	Cross Bronx Expwy	21,819	168	1%	21,819	237	1%
	High Bridge–Morrisania	4	5	Cross Bronx Expwy	21,819	168	1%	21,819	237	1%
				Major Deegan Expwy	Community does not have tracts with potential truck-traffic increases adjacent to Major Deegan Expwy			14,106	240	2%
	Hunts Point–Mott Haven	11	11	Major Deegan & Bruckner Expwys	7,618	874	11%	7,618	695	9%
				Approach to RFK Bridge	9,868	1,339	14%	9,868	1,100	11%
	Northeast Bronx	1	1	New England Thruway	13,640	191	1%	13,640	106	1%
	Pelham–Throgs Neck	17	17	Cross Bronx Expwy Ext.	9,580	398	4%	9,580	388	4%
				Throgs Neck Expwy	4,194	50	1%	4,194	73	2%
				Bruckner Expwy	5,624	277	5%	5,624	263	5%
Kings, NY	Bensonhurst–Bay Ridge	2	2	Gowanus Expwy	8,328	495	6%	8,328	270	3%
	Downtown–Heights–Slope (Downtown Brooklyn–Fort Greene)*	8	9	Brooklyn Queens Expwy	14,107	891	6%	14,107	378	3%
				Prospect Expwy	Community does not have tracts with potential truck-traffic increases adjacent to Prospect Expwy			5,942	51	1%
	Greenpoint (South Williamsburg)**	7	7	Brooklyn Queens Expwy	15,762	878	6%	15,762	452	3%
	Sunset Park	15	15	Gowanus Expwy	10,015	632	6%	10,015	290	3%
New York, NY	East Harlem	2	2	Approach to RFK Bridge	1,513	1,556	103%	1,513	423	28%

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COUNTY	COMMUNITY	NO. OF TRACTS WITH AT LEAST ONE PRE-EXISTING POLLUTANT OR CHRONIC DISEASE BURDEN (90 <sup>TH</sup> PERCENTILE)		HIGHWAY	DAILY TRUCK VOLUME					
		FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
					NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)	NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)
	Randall's Island***	1	1	RFK Bridge on Randall's Island	12,432	3,170	25%	12,432	1,913	15%
	Washington Heights–Inwood	3	3	Trans-Manhattan Expwy	17,370	385	2%	17,370	338	2%
Queens, NY	Bayside–Little Neck	5	4	Clearview Expwy	12,029	485	4%	12,029	480	4%
	Flushing–Clearview	2	1	Clearview Expwy	14,332	631	4%	14,332	602	4%
				Whitestone Expwy	7,929	455	6%	Community does not have tracts with potential truck-traffic increases adjacent to Whitestone Expwy		
	Jamaica	4	4	Van Wyck Expwy	8,876	303	3%	8,876	50	1%
	Long Island City–Astoria	7	6	Grand Central Pkwy	9,935	2,522	25%	9,935	1,447	15%
				Brooklyn Queens Expwy	12,572	1,982	16%	12,572	1,308	10%
				Long Island Expwy	5,247	260	5%	5,247	-96	-2%
	Southeast Queens <sup>†</sup>	2	1	Clearview Expwy	7,649	59	1%	7,649	67	1%
	Southwest Queens <sup>††</sup>	2	3	Van Wyck Expwy	7,264	12	0.2%	5,999	66	1%
	West Queens	9	9	Long Island Expwy	5,247	260	5%	5,247	-96	-2%
				Brooklyn Queens Expwy	8,657	1,696	20%	8,657	1,024	12%
Richmond, NY	Port Richmond	2	2	MLK Expwy	3,023	339	11%	3,023	84	3%
	Stapleton–St. George	1	1	Staten Island Expwy	8,625	763	9%	8,625	363	4%
Bergen, NJ	Fort Lee	2	2	I-95	21,427	368	2%	21,427	438	2%
				N Bergen Blvd (US-46)	6,499	312	5%	6,499	162	2%
				NJ Rt 4	12,413	35	0.3%	12,413	105	1%
	Hackensack	1	1	I-80	15,034	208	1%	15,034	68	0.5%

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COUNTY	COMMUNITY	NO. OF TRACTS WITH AT LEAST ONE PRE-EXISTING POLLUTANT OR CHRONIC DISEASE BURDEN (90 <sup>TH</sup> PERCENTILE)		HIGHWAY	DAILY TRUCK VOLUME					
					FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
		FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)	NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)
	Ridgefield Park Village	1	1	US-46	3,202	195	6%	3,202	44	1%
	Palisades Park	1	1	US-1-9-46	2,854	344	12%	2,854	70	2%
	Lodi	1	1	I-80	9,976	164	2%	9,976	211	2%
				NJ Rt 17	9,387	345	4%	9,387	258	3%
				US-46	4,420	13	0.3%	4,420	8	0.2%
	Paramus	1	1	NJ Rt 17	8,890	335	4%	8,890	201	2%
				NJ Rt 4	7,300	3	0.04%	7,300	-42	-1%
	Ridgefield	1	1	I-95	10,644	266	2%	10,644	66	1%
				US-9	2,905	48	2%	2,905	29	1%
Essex, NJ	East Orange	1	1	I-280	5,688	115	2%	5,688	137	2%
	Newark	6	5	McCarter Hwy (NJ Rt 21)	6,381	17	0.3%	Community does not have tracts with potential truck-traffic increases adjacent to McCarter Hwy (NJ Rt 21)		
				I-280	6,425	117	2%	6,425	138	2%
	West Orange	1	1	I-280	5,618	116	2%	5,618	136	2%
	City of Orange	2	2	I-280	5,722	115	2%	5,722	135	2%
Hudson, NJ	Bayonne	4	4	NJ Rt 440	7,432	443	6%	7,432	238	3%
	Harrison	2	2	I-280	6,951	118	2%	6,951	155	2%
	Jersey City	5	5	Tonnelle Ave	4,461	540	12%	4,461	479	11%
				NJ Rt 139	3,571	207	6%	3,571	341	10%
	Kearny	1	1	I-280	6,954	107	2%	6,954	154	2%
				NJ Rt 9	11,481	359	3%	11,481	260	2%
Nassau, NY	North Hempstead	2	2	Long Island Expwy	7,744	3	0.04%	7,744	3	0.04%

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Source: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

Notes:

Results are not shown for Ridgewood–Forest Hills because no tracts with potential truck-traffic proximity increases appeared in this community under the adopted toll structure.

In the Final EA, No Build truck AADT and Scenario E truck AADT change were miscalculated for a few portions of highways described in Tables 17D-15. This table includes corrected values. These corrections do not change the conclusions of the Final EA, as potential truck-traffic proximity increases of any magnitude were used to identify tracts and communities for potential effects and mitigation.

- \* As noted in Final EA, Appendix D to Appendix 17D, Part of the Downtown–Heights–Slope UHF neighborhood but labelled “Downtown Brooklyn-Fort Greene” to further specify location.
- \*\* As noted in Final EA, Appendix D to Appendix 17D, Part of the Greenpoint UHF neighborhood, but labeled as “South Williamsburg” to further specify location.
- \*\*\* As noted in Final EA, Appendix D to Appendix 17D, part of the East Harlem UHF neighborhood, but labeled as “Randall’s Island” to further specify location.
- † Under Tolling Scenario E (as noted in Final EA Tables 17D-10 and 17D-15), Census Tract 1571.02, Queens County, a truck traffic proximity increase is predicted due to an increase of less than 1 truck per day on a Cross Island Parkway service road under Tolling Scenario E; the tract does not have potential truck-traffic proximity increases under the adopted toll structure.
- †† No Action AADT differs between Tolling Scenario E and adopted toll structure on the Van Wyck Expwy because an additional tract with potential truck-traffic proximity increases under adopted toll structure extends the length of the highway along which the No Action AADT was measured

**Table 17.8 - Modified Final EA Table 17D-17. Environmental Justice Tracts and Communities That Would Merit Place-Based Mitigation (Scenario E), With the Adopted Toll Structure ("90 and 90" Tracts and Communities)**

COUNTY	MAP MARKER	COMMUNITY	NO. OF TRACTS WITH AT LEAST ONE PRE-EXISTING POLLUTANT AND CHRONIC DISEASE BURDEN		HIGHWAYS	DAILY TRUCK VOLUME					
			FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
						No Action (AADT)	Change (AADT)	Change (%)	No Action (AADT)	Change (AADT)	Change (%)
Bronx, NY	1	High Bridge–Morrisania and Crotona–Tremont	18	18	Cross Bronx Expwy	21,819	168	0.8%	21,819	237	1.1%
			0	1	Major Deegan Expwy	Community does not have tracts with potential truck traffic increases adjacent to Major Deegan Expwy			14,106	240	1.7%
	2	Hunts Point–Mott Haven/Pelham–Throgs Neck	14	14	Bruckner Expwy	5,624	277	4.9%	5,624	263	4.7%
	3	Hunts Point–Mott Haven	3	3	Major Deegan & Bruckner Expwys	7,618	874	11.5%	7,618	695	9.1%
			1*	1*	Approach to RFK Bridge	9,868	1,339	13.6%	9,868	1,100	11.1%
	4	Pelham–Throgs Neck	1	1	Throgs Neck Expwy	4,194	50	1.2%	4,194	73	1.7%
			1	1	Cross Bronx Expwy Ext.	9,580	398	4.2%	9,580	388	4.1%
New York,	5	Northeast Bronx	1	1	New England Thruway	13,640	191	1.4%	13,640	106	0.8%
	6	East Harlem	2	2	RFK Bridge Approach at E 125th St	1,702	1,924	113.0%	1,702	672	39.5%
	7	Randall’s Island**	1	1	RFK Bridge on Randall’s Island	12,432	3,170	25.5%	12,432	1,913	15.4%
Kings, NY	8	Downtown–Heights–Slope (Downtown Brooklyn–Fort Greene)***	3	3	Brooklyn Queens Expwy	14,107	891	6.3%	14,107	378	2.7%
	9	Greenpoint (South Williamsburg)†	4	4	Brooklyn Queens Expwy	15,870	853	5.4%	15,870	428	2.7%
Essex, NJ	10	Orange–East Orange–Newark	6	6	I-280	6,106	116	1.9%	6,106	137	2.2%

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COUNTY	MAP MARKER	COMMUNITY	NO. OF TRACTS WITH AT LEAST ONE PRE-EXISTING POLLUTANT AND CHRONIC DISEASE BURDEN		HIGHWAYS	DAILY TRUCK VOLUME					
			FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
						No Action (AADT)	Change (AADT)	Change (%)	No Action (AADT)	Change (AADT)	Change (%)
Bergen, NJ	11	Fort Lee	1	1	I-95/George Washington Bridge	14,768	195	1.3%	14,768	231	1.6%

Source: U.S. Census Bureau, ACS 2015–2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

Notes:

As in Final EA Table 17D-17, this table lists the 13 identified communities under both Tolling Scenario E and the adopted toll structure into 11 rows. Census Tract 3009, Nassau County, not shown. As noted in Final EA, Table 17D-17, “closer examination indicates that this tract is shown with a potential increase in truck traffic proximity under Tolling Scenario E; though roadways passing through the tract have the potential to see decreases in truck traffic, the center of its population is near [a portion of] a roadway where modeling indicates that truck traffic could increase.”

In the Final EA, No Build truck AADT and Scenario E truck AADT change were miscalculated for a portion of a highway described in Table 17D-17. This table includes corrected values. These corrections do not change the conclusions of the Final EA, as potential truck-traffic proximity increases of any magnitude were used to identify tracts and communities for potential effects and mitigation.

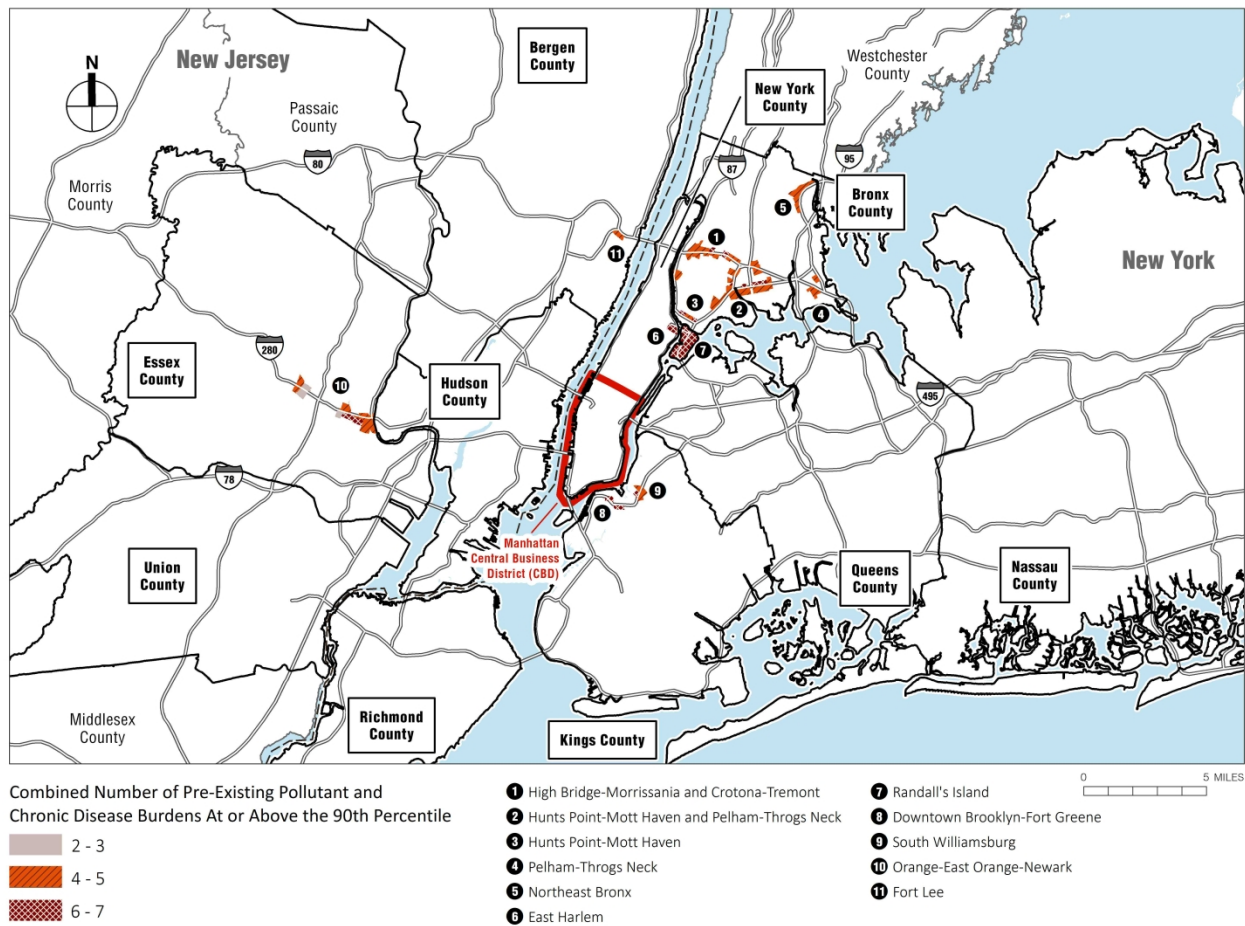
\* Census Tract 27.01, Bronx County, immediately north of junction between RFK Bridge approach and Bruckner Expwy; tract also included in row for Major Deegan & Bruckner Expwys above.

\*\* As noted in Final EA, Appendix D to Appendix 17D, part of the East Harlem UHF neighborhood, but labeled as “Randall’s Island” to further specify location.

\*\*\* As noted in Final EA, Appendix D to Appendix 17D, Part of the Downtown–Heights–Slope UHF neighborhood but labelled “Downtown Brooklyn-Fort Greene” to further specify location.

† As noted in Final EA, Appendix D to Appendix 17D, Part of the Greenpoint UHF neighborhood, but labeled as “South Williamsburg” to further specify location.

Figure 17.4. Modified Final EA Figure 17D-18. Environmental Justice Census Tracts with High Pre-Existing Pollutant and Chronic Disease Burdens Where Truck Traffic Proximity Could Potentially Increase (Adopted Toll Structure)



Source: USEPA NATA and Agency Air Quality System via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJ 2022 data; BPM, WSP 2021 and 2023.

Note: Percentiles are national. Census Tract 3009, Nassau County not shown. Potential truck volume increases and decreases on roadways within the tract would ultimately cancel each other out and result in no change of truck traffic proximity for the residential populations within the tract.



## Non-Truck Traffic

- **Intensity of Potential Non-Truck-Traffic Increases:** Under the adopted toll structure, non-truck traffic increases would be of a lower intensity, as illustrated in **Table 17.11**, which provides the minimum, average, and maximum increase in truck-traffic proximity for environmental justice-designated census tracts for Final EA Tolling Scenarios E and G, as well as the adopted toll structure. As described in Final EA Appendix 17D, non-truck traffic proximity uses the same calculation method used for truck-traffic proximity.<sup>15</sup> The average and maximum non-truck-traffic proximity increases that would occur with the adopted toll structure are all smaller than with the Final EA Tolling Scenario E or G.
- **Location of Tracts and Communities with Potential Non-Truck Traffic Effects:** Under the adopted toll structure, small differences in the tracts and communities where potential non-truck diversion effects would occur, without potential truck effects, from those described in the Final EA, as illustrated in **Table 17.12**, which is Final EA Tables 17D-12 and 17D-13 with the adopted toll structure added. No new communities with potential non-truck traffic increases but without truck-traffic increases.
  - Four new tracts in overburdened communities with potential non-truck traffic increases, without truck-traffic proximity increases that did not appear under Tolling Scenarios E or G as illustrated in **Table 17.11**. Two of these four tracts had potential increases in non-truck traffic under Tolling Scenarios E and G but also had increase in truck-traffic proximity. Under the adopted toll structure, these tracts do not have potential truck-traffic proximity increases, and so appear as having potential non-truck effects.
  - In the Final EA, Tables 17D-12 and 17D-13 provide data about some of the adjacent roadways where non-truck volume decreases could occur, including estimates of average annual daily non-truck AADT on highways under the No Action Alternative, modeled changes in non-truck AADT with CBDTP, and the percentage that this change would represent from the No Action Alternative. **Table 17.12** presents these AADT data as well.<sup>16</sup>

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<sup>15</sup> Final EA Appendix 17D, Section 17D-6.1.5, p. 17D-56.

<sup>16</sup> As noted in the Final EA, Appendix 17D, Tables 17D-12 and 17D-13, and similar to tables describing truck traffic proximity increases, in some cases, nearby roadways will show decreases in non-truck AADT when truck traffic proximity increases, and vice versa. This occurs because of the distance weighting that is part of calculating changes in truck traffic proximity. A nearby roadway may show a net increase in truck traffic AADT, but the center of a census tract's population may be closer to a portion of the roadway with estimated decreases in truck volumes, meaning that exposure to emissions and truck traffic proximity decreases.

**Table 17.9 - Range of Non-Truck-Traffic Proximity Increases for Environmental Justice-Designated Overburdened Tracts Where Truck Traffic Proximity Would Not Also Increase**

TOPIC	LOCATION	DATA SHOWN IN TABLE	NON-TRUCK TRAFFIC PROXIMITY CHANGE (DAILY NON-TRUCKS PER METER DISTANCE)		
			FINAL EA SCENARIO E	FINAL EA SCENARIO G	ADOPTED TOLL STRUCTURE
Increases in non-truck traffic proximity , as a result of traffic diversions, in communities already overburdened by preexisting air pollution and chronic diseases, but where truck traffic would not also increase	80 <u>OR</u> 66.66 Environmental Justice Designated Census Tracts	Minimum	0.31	0.03	0.08
		Average	22.69	26.37	12.69
		Maximum	216.02	316.77	159.61

Source: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

**Table 10. Table 17.11 - Change in Non-Truck Traffic Proximity for Overburdened Environmental Justice-Designated Tracts Without Truck-Traffic Proximity Increases Under the Adopted Toll Structure, and which Did Not Appear Under Tolling Scenarios E and G**

LOCATION	NON-TRUCK TRAFFIC PROXIMITY CHANGE (DAILY NON-TRUCKS PER METER DISTANCE)			HIGHWAY	NON-TRUCK TRAFFIC					
	SCENARIO E	SCENARIO G	ADOPTED TOLL STRUCTURE		SCENARIO E		SCENARIO G		ADOPTED TOLL STRUCTURE	
					CHANGE (AADT)	CHANGE (%)	CHANGE (AADT)	CHANGE (%)	CHANGE (AADT)	CHANGE (%)
Tract 334, Bronx County, NY (Fordham–Bronx Park)*	-6.75	-4.57	0.34	Bronx River Pkwy	-334	-0.3%	-102	-0.1%	-19	-0.02%
Tract 68, Bronx County, NY (Pelham–Throgs Neck)	-1.43	-0.02	0.08	Bronx River Pkwy	-168	-0.3%	-8	0.0%	12	0.02%
Tract 1571.02, Queens County, NY (Southeast Queens)**	9.43	12.32	11.28	Cross Island Pkwy	463	0.4%	714	0.6%	802	0.7%
Tract 96, Essex County, NJ (Newark)***	2.08	1.80	3.30	McCarter Hwy (NJ Rt 21)	470	1%	404	1%	779	2%

Source: U.S. Census Bureau, ACS 2015–2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

Notes:

\* Closer examination indicates that this tract is predicted to have an increase in non-truck traffic proximity under Scenario E and the adopted toll structure; though the portion of the Bronx River Pkwy passing through the tract is predicted to see a net decrease in non-truck traffic, the center of its population is near a portion of a highway where modeling indicates that non-truck traffic could increase

\*\* Under Tolling Scenario E (as noted in Final EA Tables 17D-10 and 17D-15), as well as under Tolling Scenario G, Census Tract 1571.02, Queens County shows a potential non-truck traffic proximity increase, but it also shows a potential truck traffic proximity increase due to an increase of less than 1 truck per day on a Cross Island Parkway service road. Because of this small, potential truck traffic proximity increase, this tract was included in Table 17D-15 along with other tracts showing potential truck-traffic proximity increases under Tolling Scenario E. Under the adopted toll structure, the potential increase in truck traffic proximity is zero, which is why Census Tract 1571.02, Queens County appears in this table

\*\*\* Under Tolling Scenarios E and G, Census Tract 96, Essex County, has potential increases in both truck and non-truck traffic proximity. Thus, the tract did not appear in Final EA Tables 17D-12 and 17D-13. Under the adopted toll structure, the tract has potential truck-traffic proximity decreases, which is why it appears in this table

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Table 17.11 - Modified Final EA Table 17D-12 and 17D-13. Environmental Justice Tracts and Communities That Could Experience Non-Truck Traffic Proximity Increases without Truck Traffic Proximity Increases under the Adopted Toll Structure with Scenarios E & G

This table shows the number of environmental justice-designated tracts in each community with at least one pre-existing pollutant (80th percentile) or chronic disease burden (66.66th percentile). Blue shading behind the numbers of tracts under Tolling Scenarios E and G indicates that the corresponding community is not identified in the table of communities having highly burdened environmental justice-designated tracts with potential truck-traffic proximity increases under Tolling Scenario E (Final EA Table 17D-10). For the adopted toll structure, blue shading also appears behind the number of tracts to indicate that the corresponding community is not identified in the table of communities having highly burdened environmental justice-designated tracts with potential truck-traffic proximity increases under the adopted toll structure.

COUNTY	COMMUNITY	NUMBER OF TRACTS BY NUMBER OF PRE- EXISTING POLLUTANT (80TH PERCENTILE) OR CHRONIC DISEASE BURDENS (66.66TH PERCENTILE)			HIGHWAY	FINAL EA SCENARIO E			FINAL EA SCENARIO G			ADOPTED TOLL STRUCTURE		
		FINAL EA SCENARIO E	FINAL EA SCENARIO G	ADOPTED TOLL STRUCTURE		DAILY NON-TRUCK NO ACTION (AADT)*	DAILY NON-TRUCK CHANGE (AADT)	DAILY NON-TRUCK CHANGE (%)	DAILY NON-TRUCK NO ACTION (AADT)	DAILY NON-TRUCK CHANGE (AADT)	DAILY NON-TRUCK CHANGE (%)	DAILY NON-TRUCK NO ACTION (AADT)	DAILY NON-TRUCK CHANGE (AADT)	DAILY NON-TRUCK CHANGE (%)
Bronx, NY	Fordham–Bronx Park	3	8	8	Bronx River Pkwy	95,415	-17	-0.02%	95,415*	301	0.3%	105,451*	10	0.01%
					Mosholu Pkwy	49,364	183	0.4%	49,364	291	1%	49,364	393	1%
	Kingsbridge–Riverdale**	1	2	1	Bronx River Pkwy	88,312	158	0.2%	88,312	502	1%	88,312	355	0.4%
					Henry Hudson Pkwy	52,188	-2,013	-4%	52,188	-1,338	-3%	52,188	-1,226	-2%
					Major Deegan Expwy	137,804	-2,620	-2%	137,804	-1,650	-1%	138,304	-2,256	-2%
					Mosholu Pkwy	70,125	-631	-1%	70,125	-125	-0.2%	70,125	-210	-0.3%
	Northeast Bronx***	5	4	5	Bronx River Pkwy	88,312	158	0.2%	88,312	502	1%	88,312	355	0.4%
					Hutchinson River Pkwy	139,000	-132	-0.1%	Community does not have tracts with potential traffic increases adjacent to Hutchinson River Pkwy			139,000	90	0.1%
					New England Thruway	114,329	-2,330	-2%	Community does not have tracts with potential traffic increases adjacent to New England Thruway			114,329	-1,963	-2%
	Pelham–Throgs Neck		5	1	Bronx River Pkwy	Community does not have tracts with potential traffic increases adjacent to Bronx River Pkwy			Community does not have tracts with potential traffic increases adjacent to Bronx River Pkwy			51,051	12	0.02%
					Cross Bronx Expwy Ext	All tracts with non-truck traffic increases adjacent to Cross Bronx Expwy Ext also have truck-traffic proximity increases and are included in Table 17D-15			67,348	2,945	4%	Tract with non-truck traffic increases adjacent to Cross Bronx Expwy Ext also has truck traffic increases, and is included in Table 17D-15		
Kings, NY	Bensonhurst–Bay Ridge		7	5	Belt Pkwy	All tracts with non-truck traffic increases also have truck-traffic proximity increases and are included in Table 17D-15			102,954*	215	0.2%	108,802*	1,155	1%
					Brooklyn Queens Expwy				53,564*	2,128	4%	41,286*	1,472	4%
	Canarsie–Flatlands		2	2	Belt Pkwy	Community does not have tracts with potential traffic increases adjacent to Belt Pkwy			126,307	432	0.3%	126,307	756	1%
	Coney Island–Sheepshead Bay		7	7	Belt Pkwy	Community does not have tracts with potential traffic increases adjacent to Belt Pkwy			118,945	930	1%	118,945	1,124	1%
	East New York	1	1	1	Jackie Robinson Pkwy	87,492	1,440	2%	87,492	538	1%	87,492	1,382	2%
New York, NY	Central Harlem–Morningside Heights†		3	1	Harlem River Dr	Community does not have tracts with potential traffic increases adjacent to Harlem River Dr			122,662	1,037	1%	120,876	-315	-0.3%
	Lower Manhattan	1	1	1	FDR Dr	44,052	5,755	13%	44,052	3,137	7%	44,052	1,364	3%
	Union Square–Lower East Side (Lower East Side)	4	4	4	FDR Dr	107,507	7,672	7%	107,507	8,150	8%	107,507	7,609	7%

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COUNTY	COMMUNITY	NUMBER OF TRACTS BY NUMBER OF PRE- EXISTING POLLUTANT (80TH PERCENTILE) OR CHRONIC DISEASE BURDENS (66.66TH PERCENTILE)			HIGHWAY	FINAL EA SCENARIO E			FINAL EA SCENARIO G			ADOPTED TOLL STRUCTURE		
		FINAL EA SCENARIO E	FINAL EA SCENARIO G	ADOPTED TOLL STRUCTURE		DAILY NON-TRUCK NO ACTION (AADT)*	DAILY NON-TRUCK CHANGE (AADT)	DAILY NON-TRUCK CHANGE (%)	DAILY NON-TRUCK NO ACTION (AADT)	DAILY NON-TRUCK CHANGE (AADT)	DAILY NON-TRUCK CHANGE (%)	DAILY NON-TRUCK NO ACTION (AADT)	DAILY NON-TRUCK CHANGE (AADT)	DAILY NON-TRUCK CHANGE (%)
Queens, NY	Flushing–Clearview	1	2	2	Cross Island Pkwy	110,139	295	0.3%	110,139	282	0.3%	110,139	597	1%
					Whitestone Expwy	Tract with non-truck traffic increases adjacent to Whitestone Expwy also has truck-traffic increases and is included in Table 17D-15			163,532	1,054	1%	163,532	115	0.07%
	Jamaica <sup>††</sup>	1	2	1	Belt Pkwy	155,884	-617	-0.4%	155,884	-165	-0.1%	Community does not have tracts with potential traffic increases adjacent to Belt Pkwy		
					JFK Expwy	34,513	7	0.02%	34,513	-262	-1%	Community does not have tracts with potential traffic increases adjacent to JFK Expwy		
					Nassau Expwy	66,009	-1,023	-2%	66,009	-977	-1%	Community does not have tracts with potential traffic increases adjacent to Nassau Expwy		
					Van Wyck Expwy	159,528	-138	-0.09%	159,528	751	0.5%	159,528	122	0.08%
	Ridgewood–Forest Hills	2	2	2	Jackie Robinson Pkwy	117,227	553	0.5%	117,227	512	0.4%	117,227	651	1%
	Southeast Queens	2	3	4	Belt Pkwy	157,617	53	0.03%	157,617	583	0.4%	157,617	321	0.2%
					Cross Island Pkwy	136,974	-41	-0.03%	136,974	526	0.4%	125,701	544	0.4%
					Hook Creek Blvd	3,356	26	0.8%	3,356	-19	-1%	3,356	-73	-2%
	Southwest Queens	1	3	2	Belt Pkwy	167,960	-1,855	-1%	167,960	841	1%	167,960	952	1%
					Nassau Expwy	Community does not have tracts with potential traffic increases adjacent to Nassau Expwy			32,379	-910	-3%	32,379	-631	-2%
					Van Wyck Expwy	132,116	534	0.4%	132,116	-535	-0.4%	Tract with non-truck traffic increases adjacent to Van Wyck Expwy also has truck traffic increases, and is included in Table 17D-15		
	West Queens	1	3	3	Grand Central Pkwy	Community does not have tracts with potential traffic increases adjacent to Grand Central Pkwy			109,447	859	1%	109,447	280	0.3%
					Long Island Expwy	184,144	1,108	0.6%	Community does not have tracts with potential traffic increases adjacent to Long Island Expwy			Community does not have tracts with potential traffic increases adjacent to Long Island Expwy		
Bergen, NJ	Fort Lee		2	1	I-95	All tracts with non-truck traffic increases adjacent to I-95 also have truck-traffic proximity increases and are included in Table 17D-15			136,411*	9,431	7%	122,339*	5,770	5%
					Palisades Interstate Pkwy	Community does not have tracts with potential traffic increases adjacent to Palisades Interstate Pkwy			64,897	1,616	2%	64,897	1,068	2%
					N Bergen Blvd (US-46)	All tracts with non-truck traffic increases adjacent to N Bergen Blvd (US-46) also have truck-traffic proximity increases and are included in Table 17D-15			46,580	3,170	7%	Community does not have tracts with potential traffic increases adjacent to N Bergen Blvd (US-46)		
Essex, NJ	Belleville <sup>†††</sup>	1		1	McCarter Hwy (NJ Rt 21)	45,515	525	1%	45,515	479	1%	45,515	821	2%
	East Orange	3	3	3	Garden State Pkwy	108,539	1,296	1%	108,539	1,252	1%	108,539	1,392	1%
					I-280	95,485	-1,958	-2%	95,485	-1,934	-2%	95,485	-1,702	-2%
	Irvington	6	6	6	Garden State Pkwy	121,204	1,475	1%	121,204	1,128	1%	121,204	1,363	1%
	Newark	1	1	2	Garden State Pkwy	128,342	1,279	1%	128,342	1,126	1%	128,342	1,398	1%
					McCarter Hwy (NJ Rt 21)	Tract with non-truck traffic increases adjacent to McCarter Hwy (NJ Rt 21) also has truck-traffic			42,369	404	1%	42,369	779	2%

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COUNTY	COMMUNITY	NUMBER OF TRACTS BY NUMBER OF PRE- EXISTING POLLUTANT (80TH PERCENTILE) OR CHRONIC DISEASE BURDENS (66.66TH PERCENTILE)			HIGHWAY	FINAL EA SCENARIO E			FINAL EA SCENARIO G			ADOPTED TOLL STRUCTURE		
		FINAL EA SCENARIO E	FINAL EA SCENARIO G	ADOPTED TOLL STRUCTURE		DAILY NON-TRUCK NO ACTION (AADT)*	DAILY NON-TRUCK CHANGE (AADT)	DAILY NON-TRUCK CHANGE (%)	DAILY NON-TRUCK NO ACTION (AADT)	DAILY NON-TRUCK CHANGE (AADT)	DAILY NON-TRUCK CHANGE (%)	DAILY NON-TRUCK NO ACTION (AADT)	DAILY NON-TRUCK CHANGE (AADT)	DAILY NON-TRUCK CHANGE (%)
						proximity increases and is included in Table 17D-15								
Union, NJ	Elizabeth <sup>§</sup>	2	3	3	I-95	115,637	-1,415	-1%	115,637	-379	-0.3%	115,637	-628	-1%
Nassau, NY	Hempstead	1	2	2	Cross Island Pkwy	141,039	-227	-0.2%	141,039	149	0.1%	141,039	234	0.2%
					Nassau Expwy	64,528	117	0.2%	64,528	6	0.01%	64,528	385	1%

Source: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

Notes:

- Results not shown for the following communities because no tracts appeared in these communities with potential non-truck traffic increases but without potential truck-traffic increases under the adopted toll structure: Crotona–Tremont, Bronx County; High Bridge–Morrisania, Bronx County; Sunset Park, Kings County; Downtown–Heights–Slope, Kings County; Washington Heights–Inwood, New York County; Bayside–Little Neck, Queens County; Port Richmond, Richmond County; Hackensack, Bergen County; Palisades Park, Bergen County; Ridgefield, Bergen County; and Jersey City, Hudson County.
- \*

In some cases, specific tracts with potential traffic increases along a certain highway and within a community and differ between Scenario E, Scenario G, and the adopted toll structure. In these cases, the “No Action” AADT will differ because the section of the highway analyzed differs.
- \*\*

Under Tolling Scenarios E and G, (as noted on Final EA Tables 17D-12 and 17D-13) as well as the adopted toll structure, Census Tract 435, Bronx County is predicted to have an increase in non-truck traffic proximity; though highways passing through the tract are predicted to see net decreases in non-truck traffic, the center of its population is near a portion of a highway where modeling indicates that non-truck traffic could increase.
- \*\*\*

Under Tolling Scenario E (as noted on Final EA Table 17D-12) and the adopted toll structure, Census Tract 302, Bronx County is predicted to have an increase in non-truck traffic proximity under Tolling Scenario E and the adopted toll structure; though highways adjacent to the tract are predicted to see net decreases in non-truck traffic, the center of its population is near a portion of a highway where modeling indicates that non-truck traffic could increase.
- †

Under the adopted toll structure, Census Tract 243.02, New York County, could see in increase in non-truck traffic proximity, even though AADT is predicted to decrease. Though the highway adjacent to the tract is predicted to see decreases in non-truck traffic, the center of its population is near a portion of the highway where modeling indicates that non-truck traffic could increase.
- ††

Under Tolling Scenarios E and G (as noted in Final EA Tables 17D-12 and 17D-13), Census Tract 306, Queens County is predicted to have an increase in non-truck traffic proximity; though highways passing through the tract are predicted to see net decreases in non-truck traffic, the center of its population is near a portion of a highway where modeling indicates that non-truck traffic could increase.
- †††

As noted in Final EA Table 17D-12, under Tolling Scenario E, Tract 144, Essex County has a small potential increase in truck traffic that produces a potential truck-traffic proximity change of less than one truck per meter distance.
- §

Under Scenarios E & G (as noted in Final EA Tables 17D-12 and 17D-13) as well as under the adopted toll structure, non-truck traffic proximity is predicted to increase in these census tracts, even though AADT is predicted to see a net decrease; the centers of population in each of the three tracts are closer to portions of the highway where modeling indicates non-truck traffic proximity could increase.



## Regional and Place-Based Mitigation

As noted in the Final EA and above, the Project Sponsors will implement regional and place-based mitigation measures to potential Project-related traffic diversions, related air pollutants, and associated health effects in communities that are already overburdened by pre-existing air pollution and chronic diseases, relative to national percentiles. **Table 17.13**, below, shows the mitigation measures committed to by the Project Sponsors with the funding amounts committed to in the Final EA as well as the funding amounts committed to with the adopted toll structure.

Table 17-12. Regional and Place-Based Mitigation Measures

MITIGATION MEASURES	BENEFIT AND RESULT OF MITIGATION	RELEVANT LOCATION(S)	IMPLEMENTATION LEAD	FUNDING SOURCE	5-YEAR FUNDING¹	
					FINAL EA	ADOPTED TOLL STRUCTURE
Regional Mitigation						
Further reduced overnight toll	Minimize/avoid truck diversions	10-county environmental justice study area	TBTA	CBD Tolling Program	\$30 million	\$123 million
Expand NYC Clean Trucks Program	NOx and PM <sub>2.5</sub> reductions from ~500 new clean trucks		NYCDOT	CBD Tolling Program	\$20 million	\$20 million
Expand NYCDOT Off-Hours Delivery Program	Safety and emissions reduction benefits resulting from reduced truck traffic during the day		NYCDOT	CBD Tolling Program	\$5 million	\$5 million
Place-Based Mitigation						
Toll vehicles traveling northbound on the FDR Drive that exit at East Houston Street and then travel southbound on FDR Drive	25 to 35 percent of the non-truck traffic increases on the FDR Drive could be mitigated	FDR Drive between the Brooklyn Bridge and East Houston Street	TBTA	N/A	N/A	N/A
Replacement of Transport Refrigeration Units (TRUs) at Hunts Point Produce Market	Major NOx and PM <sub>2.5</sub> reductions from the replacement of up to 1,000 TRUs	Hunts Point	NYCDOT	CBD Tolling Program²	\$15 million²	\$15 million²
Implement Electric Truck Charging Infrastructure	NOx and PM <sub>2.5</sub> reductions from electric vehicles using 35 new chargers (at seven stations)	See “Benefits and Allocation of Funding for Mitigation Measures,” below	NYSDOT	\$10 million Federal CRP + \$10 million CBD Tolling Program	\$20 million	\$20 million
Install Roadside Vegetation to Improve Near-Road Air Quality	Improves near-road air quality by pollutant capture from ~4,000 trees and ~40,000 shrubs		TBTA with Relevant State and Local Agencies	CBD Tolling Program	\$10 million	\$10 million
Renovate Parks and Greenspace in Environmental Justice Communities	Increases overall community well-being. 2-5 park/ greenspace renovations depending on size and complexity.		TBTA with Relevant State and Local Agencies	CBD Tolling Program	\$25 million	\$25 million
Install Air Filtration Units in Schools Near Highways	Removes air pollutants from classrooms. 25-40 schools depending on school size and complexity of existing HVAC system.		TBTA with Relevant State and Local Agencies	CBD Tolling Program	\$10 million	\$10 million
Establish Asthma Case Management Program and Bronx Center	Reduces hospitalizations and doctor visits, decreases days and nights with symptoms and missed school days – program expansion up to 25 schools		NYC DOHMH	CBD Tolling Program	\$20 million	\$20 million

Notes:

<sup>1</sup> An additional \$5 million has been allocated for mitigation and enhancement measures related to monitoring across other topics, along with \$82 million for the low-income toll discount. Enhancement measures include air quality monitoring that will expand NYC’s existing monitoring network. Locations have been selected in consideration of the traffic and air quality analyses in the Final EA and in coordination with environmental justice stakeholders and relevant state and local agencies. This will complement the regional and place-based mitigation measures related to traffic diversions outlined here.

<sup>2</sup> In the Final EA, MTA CMAQ funds were identified for replacement of TRUs at Hunts Point Produce Market; the source has changed, but not the amount of funding; after three years, any remaining funds designated for TRU replacements may also be used for clean truck replacement vouchers through the NYC Clean Trucks Program.

## Benefits and Allocation of Funding for Mitigation Measures

### *Benefits of Regional Mitigation Measures*

Regionwide, 151 census tracts have been identified for having potential truck traffic proximity increases, and for being in the 90th percentile for at least one pre-existing pollutant burden OR in the 90th percentile for at least one pre-existing chronic disease burden. These tracts will benefit from the commitments to regional mitigation measures. Under the adopted tolling structure, a total of \$148M has been dedicated to these regional mitigation measures. This commitment includes:

- \$123M to deeply discount the overnight toll
- \$20M to expand the NYC Clean Trucks Program
- \$5M to expand the NYCDOT Off-Hours Delivery Program

### *Discounted Overnight Toll<sup>17</sup>*

Without a discounted overnight toll, some drivers might divert to other routes to avoid the toll. The discounted overnight toll would benefit communities along diversion routes, including EJ communities, as drivers are less likely to divert due to the discounted rate. Additionally, all drivers entering the CBD during the overnight period would benefit from the lower toll. Specifically, the distribution of drivers into the CBD during the overnight period from each crossing that would benefit from the discounted toll is as follows<sup>18</sup>:

- 39.4% from vehicles crossing into the CBD from 60<sup>th</sup> Street
- 24.3% from vehicles crossing into the CBD from Brooklyn
- 18.8% from vehicles crossing into the CBD from New Jersey
- 17.5% from vehicles crossing into the CBD from Queens

### *Expansion of NYC Clean Trucks Program*

Trucks with more than 70% of their Vehicle-Miles Traveled in the tri-state (NY/NJ/CT) area are eligible for funding to replace old diesel trucks to lower-emission electric, hybrid, compressed natural gas, and clean diesel vehicles. This commitment would result in reduced emissions across the entirety of the replacement trucks' trips, through communities throughout the region, including those environmental justice communities with preexisting burdens that could have increased truck traffic proximity as a result of the adopted tolling structure.

### *Expansion of NYCDOT Off-Hours Delivery Program*

NYCDOT will expand its off-hours delivery program to reduce daytime truck traffic, reduce emissions, and increase roadway safety. This program focuses on shifting truck deliveries from peak periods to off-hours. It is available to all users and would result in a reduction of truck trips during daytime hours on access routes from any origin.

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<sup>17</sup> The adopted toll structure includes an overnight toll discounted beyond the mitigation commitment in the Final EA. The overnight E-ZPass rate is 25% of the peak toll rate from 9 pm – 5 am weekdays and 9 pm – 9 am weekends.

<sup>18</sup> See Appendix 4A.2, Table 4A.2-3, p. Appendix 4A.2-6

**Allocation of Place-Based Mitigation Funding by Community**

The Final EA concluded that specific census tracts that would experience increased or decreased traffic proximity changed depending on the tolling scenario, but that the affected communities remain largely the same. Under the adopted toll structure, the affected census tracts and communities have been identified, confirming that the same communities would be affected as predicted in the Final EA. With the completion of this analysis for the adopted toll structure, as contemplated by the Final EA and FONSI, the Project Sponsors have refined the allocation of place-based mitigation funds as outlined in Final EA Table 17-16, which commits a total of \$100M to place-based mitigation measures. This includes:

- \$15M for the Replacement of Transport Refrigeration Units (TRUs) at Hunts Point Produce Market
- \$20M to Implement Electric Truck Charging Infrastructure
- \$10M to Install Roadside Vegetation
- \$25M to Renovate Parks and Greenspace
- \$10M to Install Air Filtration Units in Schools Near Highways
- \$20M to Establish an Asthma Case Management Program and Bronx Center

To determine how the \$100M should be allocated across communities, the share of population in all affected tracts was used, as illustrated in **Table 17.13**.

**Table 17.13. Place-Based Mitigation Measures Funding Allocation**

COUNTY	COMMUNITY IDENTIFIED FOR PLACE-BASED MITIGATION	TOTAL POPULATION	SHARE OF POPULATION IN ALL AFFECTED TRACTS	ALLOCATED FUNDS
Bronx, NY	Crotona - Tremont	51,133	22.6%	\$22.6M
	High Bridge - Morrisania	20,884	9.2%	\$9.2M
	Hunts Point - Mott Haven	42,621	18.9%	\$18.9M
	Northeast Bronx	9,912	4.4%	\$4.4M
	Pelham - Throgs Neck	37,608	16.6%	\$16.6M
Kings, NY	Downtown Brooklyn–Fort Greene*	12,819	5.7%	\$5.7M
	South Williamsburg**	16,807	7.4%	\$7.4M
New York, NY	East Harlem	9,968	4.4%	\$4.4M
	Randall's Island***	2,009	0.9%	\$0.9M
Bergen, NJ	Fort Lee	3,159	1.4%	\$1.4M
Essex, NJ	City of Orange	1,925	0.9%	\$0.9M
	East Orange	4,124	1.8%	\$1.8M
	Newark	12,982	5.7%	\$5.7M

\* As noted in Final EA, Appendix D to Appendix 17D, Part of the Downtown–Heights–Slope UHF neighborhood but labelled “Downtown Brooklyn–Fort Greene” to further specify location.

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- \*\* As noted in Final EA, Appendix D to Appendix 17D, Part of the Greenpoint UHF neighborhood, but labeled as “South Williamsburg” to further specify location.
- \*\*\* As noted in Final EA, Appendix D to Appendix 17D, part of the East Harlem UHF neighborhood, but labeled as “Randall’s Island” to further specify location.

As outlined in the Final EA, several of the six mitigation strategies have been targeted to specific communities, as follows:

- Replacement of Transport Refrigeration Units (TRUs) at Hunts Point Market. In the Final EA, the amount allocated for this mitigation measure is \$15M; as noted above, this community in the Bronx is eligible for \$18.9M of the place-based mitigation funding.
- Implementation of electric charging infrastructure will be implemented through the Federal Carbon Reduction Program (CRP) using funds received by NYSDOT and will, therefore, be limited to locations in New York. However, given that 4.8% of the trucks with destinations in New York City, come from or pass through New Jersey on a daily basis, NJ communities will benefit from this mitigation. Thus, of the \$20M allocated for this, NJ will have a benefit of roughly \$1.0M related to this mitigation measure. However, as the benefits would be most concrete where charging infrastructure is located, this benefit is not deducted from allocations to New Jersey communities.
- Expansion of the existing NYC Asthma Care Management Program and a Bronx Asthma Center, which will occur throughout New York City and in the Bronx, respectively. In the Final EA, the amount allocated for this combination mitigation measure is \$20M; the Bronx communities in total are eligible for \$71.8M, and New York City communities combined are eligible for \$90.2M, inclusive of the \$71.8M.

All communities are eligible for the remaining three mitigation strategies – installation of roadside vegetation, renovation of parks and greenspace, and installation of air filtration units in schools near highways. Together, the financial commitment for these strategies totals \$45M.

As outlined in the Final EA, Project Sponsors will engage with the Environmental Justice Community Group (EJCG), relevant communities that merit place-based mitigation, and local implementing agencies to determine which of the specific place-based mitigation measures as described above are appropriate for each community within the allocated funds, and exactly where they should be sited.

The siting process will comply with all commitments made in the Final EA, be transparent to interested stakeholders including the general public, press, and elected officials, and ensure the projects are additive (i.e. not already funded and announced work). The specific site selection methodology for place-based mitigation is described below.

1. Analyze Existing Conditions in Communities and Assess Suitability of Mitigation Measures

For the identified communities, publicly available data relevant to the suitability of each type of place-based mitigation measure will be collected. Preliminary data and information to be collected will depend on the availability of data sets; additional data will be included as identified and

appropriate. Additional data may also be collected from other relevant agencies during this step, such as information related to relevant planned and programmed projects.

Geospatial analysis will be performed to determine the suitability of each mitigation measure for a given community, as well as consideration of the location of mitigation measures for which the location has been determined (i.e., Hunt's Point Produce Market TRUs). For example, in communities where only one mitigation measure is feasible, that mitigation will be sited in that community and the distribution of the remaining mitigation measures will consider this.

2. Engage the Environmental Justice Community Group

Engage EJCG to solicit feedback on MTA's approach to the site-selection process. The Project Sponsors will walk through the approach, providing details on what has been done to date. The EJCG will have the opportunity to provide input for the next phase of site selection refinement.

3. Engage with Relevant Agencies to Refine Analysis and Identify Specific Potential Sites

Meet with relevant agencies to review the initial suitability analysis and identify other factors that may influence site selection such as implementation approach, needs assessments, and other feasibility factors.

4. Refine Analysis and Mapping of Potential Sites and Ensure an Equitable Distribution of Mitigation Measures

Refine analysis to incorporate feedback from the EJCG and the relevant agencies. Specific potential sites, cost of implementation at those sites, and the funding allotment for each mitigation measure will also be considered in this step, ensuring that the mitigation funding is spread equitably throughout the communities, as outlined in Table X.A.

5. Develop and Present Draft Mitigation Plan

Develop a Draft Mitigation Plan that includes the proposed locations for each mitigation measure as well as the proposed allocated funds for each location. The Draft Mitigation Plan will be presented to relevant agencies, the EJCG, local officials, and other relevant community stakeholders for review and comment.

6. Finalize Mitigation Plan

A Final Mitigation Plan will be prepared that reflects feedback received on the Draft Mitigation Plan. This plan will be used as the roadmap for developing and finalizing MOUs and funding agreements with the Project Sponsors and other agencies. As work progresses, if there are impediments to proceeding with a given site, data and analysis from this process will be revisited and potential alternative sites will be identified using a similar process.



## CONCLUSION

The Final EA considered the effects of the Project on environmental justice populations, including local neighborhood effects and regional effects related to mobility and changes in travel patterns. It included a supplemental analysis for the Final EA of Project effects related to increases or decreases in traffic and truck traffic as a result of traffic diversions in communities already highly burdened by pre-existing air pollution and chronic diseases. For the reevaluation, the Project Sponsors considered the effects of the adopted toll structure for these same topics, using results from the BPM incorporating the adopted toll structure. The reevaluation concludes that with the implementation of the mitigation commitments of the Final EA and FONSI, the adopted toll structure would not result in disproportionately high and adverse effects on environmental justice populations or communities and no new mitigation is needed. In addition, there is no change in the communities for which place-based mitigation will be implemented. The conclusions of the Final EA with respect to environmental justice remain valid.

**Table 17.14** presents information from the Final EA Table ES-5 summarizing the conclusions related to environmental justice, now modified to include the adopted toll structure.

Table 17.14 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
17 – Environmental Justice	Low-income drivers	The EA as published in August 2022 found the increased cost to drivers with the new CBD toll would disproportionately affect low-income drivers to the Manhattan CBD who do not have a reasonable alternative for reaching the Manhattan CBD. With further analysis of the population affected and the addition of new mitigation, the Final EA concludes there would not be a disproportionately high and adverse effect on low-income drivers.	28-county study area	Narrative	The increased cost to drivers would occur under all tolling scenarios.							Yes	<p><b>Mitigation needed.</b> The Project will include a tax credit for CBD tolls paid by residents of the Manhattan CBD whose New York adjusted gross income for the taxable year is less than \$60,000. TBTA will coordinate with the New York State Department of Taxation and Finance (NYS DTF) to ensure availability of documentation needed for drivers eligible for the NYS tax credit.</p> <p>TBTA will post information related to the tax credit on the Project website, with a link to the appropriate location on the NYS DTF website to guide eligible drivers to information on claiming the credit.</p> <p>TBTA will eliminate the \$10 refundable deposit currently required for E-ZPass customers who do not have a credit card linked to their account, and which is sometimes a barrier to access.</p> <p>TBTA will provide enhanced promotion of existing E-ZPass payment and plan options, including the ability for drivers to pay per trip (rather than a pre-loaded balance), refill their accounts with cash at participating retail locations, and discount plans already in place, about which they may not be aware.</p> <p>TBTA will coordinate with MTA to provide outreach and education on eligibility for existing discounted transit fare products and programs, including those for individuals 65 years of age and older, those with disabilities, and those with low incomes, about which many may not be aware.</p> <p>The Project Sponsors commit to establishing an Environmental Justice Community Group that will meet on a quarterly basis, with the first meeting taking place prior to Project implementation, to share updated data and analysis and hear about potential concerns. As it relates to environmental justice, the Project Sponsors will continue providing meaningful opportunities for participation and engagement by sharing updated data and analysis, listening to concerns, and seeking feedback on the toll setting process.</p> <p>TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final CBD toll structure; this will benefit low-income drivers who travel during that time.</p> <p>For five years, TBTA commits to a Low-Income Discount Plan for low-income frequent drivers who will benefit from a 25 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month (not including the overnight period, which will already be deeply discounted).</p> <p><b>Enhancement</b></p> <p>TBTA will coordinate with MTA NYCT to improve bus service in areas identified in the EA as the Brooklyn and Manhattan Bus Network Redesigns move forward.</p>	Incorporating the identified mitigation, no disproportionately high and adverse effect would occur on low-income drivers.	No (with identified mitigation)	<p>No change in identified mitigation needed. The adopted toll structure incorporates and expands the mitigation commitments of the Final EA and FONSI.</p> <p>The adopted toll structure includes an overnight toll for trucks and other vehicles at 25 percent of the peak toll from 9 p.m. to 5 a.m. on weekdays and 9 p.m. to 9 a.m. on weekends</p> <p>The adopted toll structure commits, for five years to a Low-Income Discount Plan for low-income frequent drivers who will benefit from a 50 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month (not including the overnight period, which will already be deeply discounted).</p>

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Table 17.13- Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
17 – Environmental Justice	Taxi and FHV drivers	The EA as published in August 2022 found a potential disproportionately high and adverse effect would occur to taxi and FHV drivers in New York City, who largely identify as minority populations, in tolling scenarios that toll their vehicles more than once a day. This would occur in unmodified Tolling Scenarios A, D, and G; for FHV drivers, it would also occur in Tolling Scenarios C and E. The adverse effect would be related to the cost of the new CBD toll and the reduction of VMT for taxis and FHV, which would result in a decrease in revenues that could lead to losses in employment. With the addition of new mitigation, the Final EA concludes there would not be a disproportionately high and adverse effect on taxi and FHV drivers.	New York City	Narrative	Potential adverse effect would occur in Tolling Scenarios A, D, and G, which would not have caps or exemptions for taxis and FHV drivers.							Yes	Mitigation needed. TBTA will ensure that a toll structure with tolls of no more than once per day for taxis or FHV is included in the final CBD toll structure.	No disproportionately high and adverse effect would occur on New York City taxi and FHV drivers with the adopted toll structure, which includes a per-trip toll on trips to, within, or from the CBD of \$1.25 for taxis and \$2.50 for FHV. These per-trip tolls are equivalent to the once per day toll for passenger vehicles included as part of the adopted toll structure.	No	No mitigation needed.
				Change in daily taxi/FHV VMT with passengers in the CBD relative to No Action Alternative: Scenarios included in EA	-21,498 (-6.6%)	+15,020 (+4.6%)	-11,371 (-3.5%)	-54,476 (-16.8%)	-25,621 (-7.9%)	+4,962 (+1.5%)	-27,757 (-8.6%)			-904 (-0.3%)		
				Net change in daily taxi/FHV trips to CBD relative to scenarios included in EA: Additional analysis to assess effects of caps or exemptions	Tolls capped at 1x / Day: +2%	—	—	Tolls capped at 1x / Day: +3% Exempt: +50%	—	—	Tolls capped at 1x / Day: +2%			NA		

Table 17.13 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	
					A	B	C	D	E	F	G						
17 – Environmental Justice (Cont'd)	Increases or decreases in traffic, as a result of traffic diversions, in communities already overburdened by pre-existing air pollution and chronic diseases	Certain environmental justice communities would benefit from decreased traffic; some communities that are already overburdened by pre-existing air pollution and chronic diseases could see an adverse effect as a result of increased traffic.	The specific census tracts that would experience increased or decreased traffic change slightly depending on the tolling scenario. The following communities could have census tracts that merit place-based mitigation: High Bridge–Morrisania, Crotona–Tremont, Hunts Point–Mott Haven, Pelham–Throgs Neck, Northeast Bronx, East Harlem, Randall’s Island, Lower East Side/Lower Manhattan, Downtown Brooklyn–Fort Greene, South Williamsburg, Orange, East Orange, Newark, and Fort Lee.	Narrative	Census tracts with pre-existing air pollutant and chronic disease burdens that would benefit from reduced traffic, and those affected by increased traffic would vary somewhat, but the identified communities remain largely the same across tolling scenarios. Under Tolling Scenario G, Fort Lee would not experience increases.							Yes	<p><b>Mitigation needed.</b></p> <p><b>Regional Mitigation</b></p> <p>TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final toll structure; this will reduce truck diversions.</p> <p>YCDOT will expand the NYC Clean Trucks Program to accelerate the replacement of eligible diesel trucks, which travel on highways in certain environmental justice communities where the Project is projected to increase truck traffic, to lower-emission electric, hybrid, compressed natural gas, and clean diesel vehicles.</p> <p>YCDOT will expand its off-hours delivery program in locations where the Project is projected to increase truck diversions to reduce daytime truck traffic and increase roadway safety in certain environmental justice communities.</p> <p><b>Place-based Mitigation</b></p> <p>TBTA will toll vehicles traveling northbound on the FDR Drive that exit at East Houston Street and then turn to immediately travel south on FDR Drive; this ill mitigate modeled non-truck traffic increases on the FDR Drive between the Brooklyn Bridge and East Houston Street.</p> <p>YCDOT will coordinate to replace diesel-burning TRUs at Hunts Point with cleaner vehicles.</p> <p>YSDOT will coordinate to expand electric truck charging infrastructure.</p> <p>The Project Sponsors will coordinate to install roadside vegetation to improve near-road air quality.</p> <p>The Project Sponsors will renovate parks and greenspaces.</p> <p>The Project Sponsors will install or upgrade air filtration units in schools.</p> <p>The Project Sponsors will coordinate to expand existing asthma case management programs and create new community-based asthma programming through a neighborhood asthma center in the Bronx.</p>	Census tracts with pre-existing air pollutant and chronic disease burdens that would benefit from reduced traffic, and those affected by increased traffic vary somewhat from the Final EA, as anticipated.	The communities that merit place-based mitigation remain the same as those identified in the Final EA and allocations of place-based mitigation funds have been made for each as follows: Crotona–Tremont, \$22.6m; High Bridge–Morrisania, \$9.2m; Hunts Point–Mott Haven, \$18.9m; Northeast Bronx, \$4.4m; Pelham–Throgs Neck, \$16.6m; Downtown–Heights–Slope (Downtown Brooklyn–Fort Greene), \$5.7m; Greenpoint (South Williamsburg), \$7.4m; East Harlem, \$4.4m; Randall’s Island, \$0.9m; Fort Lee, \$1.4m; City of Orange, \$0.9m; East Orange, \$1.8m; and Newark, \$5.7M. (See Note 1.). TBTA’s place-based mitigation for Union Square - Lower East Side (Lower East Side) has no associated cost.	Yes	<b>No additional mitigation needed.</b> The Project Sponsors will implement the mitigation commitments of the Final EA and FONSI (listed under “Mitigation and Enhancements” in this table).

Note:

1 Based on analysis of the adopted toll structure, communities and census tracts where place-based mitigation measures will be implemented have been confirmed – the specific siting of mitigation measures is being determined through analysis of data on needs and feasibility and coordination among the Project Sponsors, the Environmental Justice Community Group (representing the 10-county environmental justice study area), and relevant stakeholders and implementing agencies; see “Benefits and Allocation of Funding for Mitigation Measures,” above.

**OVERALL PROJECT ENHANCEMENT.** The Project Sponsors commit to ongoing monitoring and reporting of potential effects of the Project, including for example, traffic entering the CBD, vehicle-miles traveled in the CBD; transit ridership from providers across the region; bus speeds within the CBD; air quality and emissions trends; parking; and Project revenue. Data will be collected in advance and after implementation of the Project. A formal report on the effects of the Project will be issued one year after implementation and then every two years. In addition, a reporting website will make data, analysis, and visualizations available in open data format to the greatest extent practicable. Updates will be provided on at least a bi-annual basis as data becomes available and analysis is completed. This data will also be used to support an adaptive management approach to monitoring the efficacy of mitigation, and adjustments as warranted.

## 18 Agency Coordination and Public Participation

Chapter 18 of the Final EA described agency coordination and public participation activities for the Project. This section of the reevaluation describes the agency coordination and public participation activities following the Final EA, including outreach already conducted and coordination that will continue following completion of this reevaluation.

### FINAL EA AND FONSI COMMITMENTS

The FONSI included commitments related to ongoing engagement and coordination. The following describes progress on those commitments.

#### Small Business Working Group

In the Final EA (see page 6-69 in Chapter 6), the Project Sponsors committed to establishing a Small Business Working Group. The purpose of this group is to share information about implementation of the Project and findings from evaluating the effects of the Project, and to solicit ongoing input on how small businesses are being affected. Actions related to this commitment have already begun; the first meeting of this group was held virtually on January 22, 2024.

The Project Sponsors invited representatives from business organizations and business improvement districts (BIDs) operating in and near the Manhattan CBD to participate in the Small Business Working Group, and representatives from 21 organizations attended the first meeting in January 2024. **Table 18.1** shows the groups invited to attend and those with representatives who attended. In this initial meeting, the Project Sponsors presented an overview of the Project, the proposed toll structure, and information on the Project's benefits and potential effects on businesses in the Manhattan CBD. After the presentation, the meeting included a discussion in which participants asked questions and raised concerns. Comments and concerns predominantly related to the need for ongoing communication with small business owners and the effect of congestion pricing on residents of the CBD.

As committed to, the second meeting of the Small Business Working Group will be held six months after Project implementation, and additional meetings will be held annually thereafter.

**Table 18.1 – Small Business Working Group Invitations and Attendance at January 2024 Meeting**

GROUP INVITED TO ATTEND	ATTENDANCE	GROUP INVITED TO ATTEND	ATTENDANCE
34th Street Partnership	Attended	Lincoln Square BID	Attended
47th Street BID (Diamond District Partnership)	Invited	Lower East Side BID	Attended
Alliance for Downtown New York	Attended	Manhattan Chamber of Commerce	Attended
Bryant Park Corporation	Attended	Madison Avenue BID	Attended
Chinatown BID	Attended	Meatpacking District BID	Attended
East Midtown Partnership	Attended	NoHo NY BID	Attended
Fifth Avenue Association	Attended	SoHo Broadway Initiative	Attended
Flatiron NoMad Partnership	Attended	Times Square Alliance	Attended
Garment District Alliance	Attended	Union Square Partnership	Attended
Grand Central Partnership	Attended	Village Alliance	Attended
Hudson Square BID	Attended	West Village BID	Invited
Hudson Yards Hell's Kitchen Alliance	Attended		

### Environmental Justice Community Group

In the Final EA (see page 17-71 and Table 17-18, page 17-78 in Chapter 17), the Project Sponsors committed to establishing an Environmental Justice Community Group to share updated data and analysis and hear about potential environmental justice-related concerns. The Project Sponsors have initiated this commitment; first meeting of this group was held virtually on February 22, 2024.

To form the new Environmental Justice Community Group, the Project Sponsors invited members of the Environmental Justice Technical Advisory Group established during the NEPA process as well as representatives of additional environmental justice organizations to join the new group. (As described in Chapter 17 of the Final EA, Section 17.9.2 on page 17-84, the Environmental Justice Technical Advisory Group consisted of community leaders, advocacy groups, industry groups, and community members from the regional study area with expertise in environmental justice considerations, with 16 groups represented.) **Table 18.2** shows the groups invited to attend the first Environmental Justice Community Group meeting and those with representatives who attended.

As shown in **Table 18.2**, representatives from 12 organizations attended the first meeting in February 2024. At that meeting, the Project Sponsors presented an overview of the Project, the proposed toll structure, a history of environmental engagement for the Project to date, the mitigation commitments made during the NEPA process and the commitments to environmental justice communities, and a timeline for future actions. After the presentation, the meeting included a discussion in which participants asked questions and raised concerns. Comments and concerns predominantly related to potential traffic diversions, place-based mitigation, and future capital projects.



**Table 18.2 – Environmental Justice Community Group Invitations and Attendance at February 2024 Meeting**

GROUP INVITED TO ATTEND	ATTENDANCE	GROUP INVITED TO ATTEND	ATTENDANCE
ALIGN	Invited	New York City Environmental Justice Alliance	Attended
American Indian Community House	Invited	New York Urban League	Invited
Asian American Federation	Attended	Northern New Jersey Community Foundation	Attended
Chhaya	Invited	The Point Community Development Corporation	Attended
Community Voices Heard	Invited; Declined	Riders Alliance	Invited
El Puente	Attended	South Bronx Unite	Attended
ERASE Racism New York	Attended	South Ward Environmental Alliance	Invited
GOLES (Good Old Lower East Side)	Attended	Staten Island Urban Center	Attended
Hispanic Federation	Invited	United Jewish Organizations of Williamsburg and North Brooklyn	Attended
The HOPE Program (formerly Sustainable South Bronx)	Invited	UPROSE	Attended
Ironbound Community Corporation	Invited; Declined	Urban Indigenous Collective	Invited
Make the Road New York	Invited	Urban League of Bergen County	Invited
NAACP – Long Island Region	Invited	Urban League of Essex County	Invited
NAACP – Metropolitan Council Region, NY	Invited	Urban League of Hudson County	Invited
NAACP – NJ State Conference	Invited	Urban League of Union County	Attended
National Action Network	Invited	WE ACT for Environmental Justice	Invited
Neighborhood Initiatives Development Corporation	Invited	WE STAY / Nos Quedamos	Invited
New Jersey Environmental Justice Alliance	Invited	Youth Ministries for Peace and Justice	Invited

As committed to in the Final EA and FONSI, the Project Sponsors will continue coordination and meetings with the Environmental Justice Community Group on a quarterly basis.

### Other Outreach Related to Environmental Justice Commitments

In addition to the Environmental Justice Community Group, the Final EA and FONSI also described that the Project Sponsors will continue providing meaningful opportunities for participation and engagement related to the concerns of environmental justice communities by sharing updated data and analysis and listening to concerns. In addition, as described in Section 17 of this reevaluation, the Project Sponsors will conduct additional coordination with the Environmental Justice Community Group and the relevant communities receiving place-based mitigation related to environmental justice concerns.

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## Education/Outreach on Discounted Transportation Options

The Final EA described TBTA's commitment to conduct enhanced outreach related to discounts and low-cost options for transit fares and tolls (see pages 17-71 and 17-78 in Chapter 17). This included the following:

- Education/outreach/coordination on the tax credit available for low-income residents of the Manhattan CBD
- Enhanced promotion of existing E-ZPass payment and plan options
- Education and outreach on existing discounted transit fare products and programs

TBTA is currently developing multiple tools for implementing the enhanced outreach commitments described in the Final EA, which will include both in-person and digital outreach methods. This will include outreach through TBTA's extensive network of E-ZPass customers and in-person distribution of information throughout MTA's service area to spread information and awareness.

[ADDITIONAL INFORMATION TO COME AS OUTREACH IS COMPLETED]

## Ongoing Coordination Related to Construction

The Final EA described the Project Sponsors' commitments related to coordination during construction (see Section 18.3.5 on page 18-8 in Chapter 18). The commitment included developing and implementing a specific construction communications plan and implement it to inform affected road users, area residences and businesses, appropriate agencies, and the public about anticipated construction activities, including their schedule and duration, and any potential roadway or lane closures, sidewalk closures or other impacts to pedestrians, commuter alternatives, and any potential temporary impacts on traffic during construction.

Construction for the Project began in July 2023. Prior to the start of construction, on July 12, 2023, the Project Sponsors presented a construction briefing to affected community boards, business improvement districts, and elected officials. Once construction began, the Project Sponsors sent weekly construction bulletins to the same group describing planned work sites, the duration and scope of the work, and any potential temporary traffic impacts. In addition, the Project Sponsors held targeted meetings with members of the public related to construction activities, related impacts to business operations and potential aesthetic changes to the infrastructure. The Project contractor maintained an outreach email address and phone line to field comments and concerns during construction.

## OTHER OUTREACH AND COORDINATION

In addition to these commitments, as part of the larger effort to educate the public and conduct outreach, TBTA has, upon invitation, participated in the following public meetings, where representatives provided an overview of the Project and answered questions from event organizers and attendees:

- Waterside Plaza Tenants Association and local elected officials on October 18, 2023
- Manhattan Community Board 3 Transportation Committee on November 14, 2023
- Hotel Association of New York to address concerns specific to the industry on January 22, 2024
- Brooklyn Community Board 7 Transportation Committee on January 29, 2024
- Manhattan Community Board 6 Transportation Committee on February 5, 2024
- Lower East Side Congestion Pricing Town Hall with elected officials on February 8, 2024
- Tribeca Congestion Pricing Town Hall with elected officials on February 15, 2024
- Interested students from Queens College, City University of New York, on February 27, 2024
- New York City Small Business Services Small Business Advisory Group, in March 2024

## 19 Section 4(f) Evaluation

Chapter 19 of the Final EA presented FHWA's Final Section 4(f) Evaluation for the CBD Tolling Program, conducted in compliance with Section 4(f) of the Department of Transportation Act of 1966 (now 49 USC Section 303 and 23 USC Section 138; U.S. Department of Transportation [USDOT] Act). As described there, the Section 4(f) Evaluation considered the Project's potential Section 4(f) use, as defined by Section 4(f), of historic sites and publicly owned parks related to installation of new tolling infrastructure and tolling system equipment, including new signage.

The Final EA presented FHWA's findings that the CBD Tolling Alternative would not result in a use of Section 4(f) properties except for the High Line and Central Park. Following consideration of public input received during the public comment period, FHWA concluded the CBD Tolling Alternative would have a *de minimis* impact on the High Line and Central Park.

The adopted toll structure would use the same tolling system equipment and infrastructure described and evaluated in the Final EA and Final Section 4(f) Evaluation. Consequently, the conclusions of the Final EA with respect to Section 4(f) remain valid and no further analysis is needed.

### CONCLUSION

After consideration of the effects of the proposed construction activities and permanent installation of tolling infrastructure and tolling system equipment, FHWA concluded that the CBD Tolling Alternative would not result in a use of Section 4(f) properties except for the High Line and Central Park, and that the Project would have a *de minimis* impact on the High Line and Central Park. The adopted toll structure would have the same construction activities and the same tolling infrastructure and tolling system equipment described and evaluated in the Final EA. Consequently, the conclusions of the Final EA related to Section 4(f) remain valid.

## Other Analyses: Short-Term Uses of the Environment and Maintenance and Enhancement of Long-Term Productivity (EA Chapter 20), Irreversible and Irretrievable Commitment of Resources (EA Chapter 21)

The two chapters represented here—short-term uses of the environment and maintenance and enhancement of long-term productivity, and irreversible and irretrievable commitment of resources—describe the temporary effects during construction in relation to the long-term benefits of the Project and the resources that must be committed to achieve the Project. The adopted toll structure will use the same tolling infrastructure and tolling system equipment described and evaluated in the Final EA, and therefore the short-term effects during construction and resources that must be committed remain unchanged. With the adopted toll structure, the Project benefits are consistent with those described in the Final EA, including reduced vehicular congestion in the Manhattan CBD, improved regional air quality, and creation of a new local, recurring funding source for MTA capital projects. Consequently, the conclusions of the Final EA for these analysis areas remain valid and no further analysis is needed.

CENTRAL BUSINESS DISTRICT (CBD) TOLLING PROGRAM

# Appendix 4A.1, Transportation: Implementation of Tolls in the Best Practice Model

2024



Final EA Appendix 4A Table 4A.1-5 Daily Drive-Alone Work-Vehicle Trips by Income Entering the Manhattan CBD (2023) — Adopted Toll Structure Added

INCOME CATEGORY	NO ACTION	SCENARIO A	SCENARIO B	SCENARIO C	SCENARIO D	SCENARIO E	SCENARIO F	SCENARIO G	ADOPTED TOLL STRUCTURE
Lowest Income	5,234	2,614	2,566	2,608	2,652	2,468	2,452	2,517	2,585
	Difference	-2,620	-2,668	-2,626	-2,582	-2,766	-2,782	-2,717	-2,649
	Percentage	-50.1%	-51.0%	-50.2%	-49.3%	-52.8%	-53.2%	-51.9%	-50.6%
Medium Income	209,971	122,856	120,637	118,821	116,793	112,310	114,648	117,643	116,639
	Difference	-87,115	-89,334	-91,150	-93,178	-97,661	-95,323	-92,337	-93,332
	Percentage	-41.5%	-42.5%	-43.4%	-44.4%	-46.5%	-45.4%	-44.0%	-44.4%
Highest Income	111,053	76,074	74,472	72,976	71,215	67,233	69,071	73,252	71,014
	Difference	-34,978	-36,580	-38,077	-39,838	-43,820	-41,982	-37,801	-40,039
	Percentage	-31.5%	-32.9%	-34.3%	-35.9%	-39.5%	-37.8%	-34.0%	-36.1%
TOTAL	326,258	201,545	197,675	194,405	190,659	182,012	186,171	193,403	190,238
	Difference	-124,713	-128,583	-131,853	-135,599	-144,246	-140,087	-132,855	-136,020
	Percentage	-38.2%	-39.4%	-40.4%	-41.6%	-44.2%	-42.9%	-40.7%	-41.7%

Source: Best Practice Model, WSP



CENTRAL BUSINESS DISTRICT (CBD) TOLLING PROGRAM

# Appendix 4A.2, Transportation: Travel Forecast Tolling Scenario Detailed Tables (2023 and 2045)

2024

Final EA Appendix 4A2, Table 4A.2-1. Toll Vehicle Volumes Entering/Leaving the Manhattan CBD by Screen Line/Crossing (2023) – with Adopted Toll Structure Added

	Daily Volumes									Percent Change							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
(by Screen Line/ Crossing)																	
Total	1,414,585	1,213,964	1,209,856	1,186,011	1,165,190	1,148,053	1,171,689	1,190,707	1,186,595	-14%	-14%	-16%	-18%	-19%	-17%	-16%	-16.1%
Inbound	716,150	605,913	590,895	592,015	581,926	573,295	585,168	594,002	591,969	-15%	-17%	-17%	-19%	-20%	-18.3%	-17.1%	-17.3%
Outbound	698,410	608,023	593,230	593,964	583,232	574,733	586,493	596,676	594,626	-13%	-15%	-15%	-16%	-18%	-16%	-15%	-14.9%
RUC										-	-	-	-	-	-	-	-
60th Street	530,784	448,516	449,884	432,313	415,589	411,849	425,651	441,908	438,182	-15.5%	-15.2%	-18.6%	-21.7%	-22.4%	-19.8%	-16.7%	-17.4%
Inbound	276,466	220,659	217,484	208,405	198,437	196,294	204,011	216,999	213,346	-20.2%	-21.3%	-24.6%	-28.2%	-29.0%	-26.2%	-21.5%	-22.8%
Outbound	254,307	227,843	225,799	223,892	217,136	215,545	221,627	224,896	224,836	-10.4%	-11.2%	-12.0%	-14.6%	-15.2%	-12.9%	-11.6%	-11.6%
FDR DRIVE+WEST SIDE HWY	291,185	276,569	277,869	273,016	265,672	263,647	270,783	274,822	275,188	-5.0%	-4.6%	-6.2%	-8.8%	-9.5%	-7.0%	-5.6%	-5.5%
West Side Highway / Route 9A	122,140	112,694	113,191	110,074	106,877	105,727	108,784	111,538	111,265	-7.7%	-7.3%	-9.9%	-12.5%	-13.4%	-10.9%	-8.7%	-8.9%
am	25,702	25,071	24,997	24,489	23,993	23,769	24,316	24,818	24,631	-2.5%	-2.7%	-4.7%	-6.6%	-7.5%	-5.4%	-3.4%	-4.2%
md	35,198	32,221	32,826	32,176	30,600	30,831	31,532	32,176	32,453	-8.5%	-6.7%	-8.6%	-13.1%	-12.4%	-10.4%	-8.6%	-7.8%
pm	26,248	25,281	25,353	24,786	24,381	24,288	24,750	25,098	25,023	-3.7%	-3.4%	-5.6%	-7.1%	-7.5%	-5.7%	-4.4%	-4.7%
nt	34,992	30,121	30,015	28,623	27,903	26,839	28,186	29,446	29,158	-13.9%	-14.2%	-18.2%	-20.3%	-23.3%	-19.5%	-15.8%	-16.7%
FDR Drive	169,045	163,875	164,678	162,942	158,795	157,920	161,999	163,284	163,923	-3.1%	-2.6%	-3.6%	-6.1%	-6.6%	-4.2%	-3.4%	-3.0%
am	34,583	34,087	34,140	34,092	33,858	33,882	34,483	34,020	34,526	-1.4%	-1.3%	-1.4%	-2.1%	-2.0%	-0.3%	-1.6%	-0.2%
md	47,506	45,244	46,147	46,139	45,226	45,310	46,489	45,180	46,125	-4.8%	-2.9%	-2.9%	-4.8%	-4.6%	-2.1%	-4.9%	-2.9%
pm	40,079	39,049	39,133	38,753	37,976	38,038	38,679	38,916	38,710	-2.6%	-2.4%	-3.3%	-5.2%	-5.1%	-3.5%	-2.9%	-3.4%
nt	46,877	45,495	45,258	43,958	41,735	40,690	42,348	45,168	44,562	-2.9%	-3.5%	-6.2%	-11.0%	-13.2%	-9.7%	-3.6%	-4.9%
WEST AVENUES	68,392	52,383	53,572	50,586	47,820	47,219	49,818	51,662	51,178	-23.4%	-21.7%	-26.0%	-30.1%	-31.0%	-27.2%	-24.5%	-25.2%
West End Ave	9,898	3,684	3,763	2,894	2,325	2,136	2,721	3,747	3,520	-62.8%	-62.0%	-70.8%	-76.5%	-78.4%	-72.5%	-62.1%	-64.4%
am	2,312	925	932	681	574	486	629	963	808	-60.0%	-59.7%	-70.5%	-75.2%	-79.0%	-72.8%	-58.3%	-65.1%
md	2,706	1,124	1,164	843	674	607	826	1,193	1,087	-58.5%	-57.0%	-68.8%	-75.1%	-77.6%	-69.5%	-55.9%	-59.8%
pm	2,930	1,090	1,151	1,001	733	744	898	1,084	1,102	-62.8%	-60.7%	-65.8%	-75.0%	-74.6%	-69.4%	-63.0%	-62.4%
nt	1,950	545	516	369	344	299	368	507	523	-72.1%	-73.5%	-81.1%	-82.4%	-84.7%	-81.1%	-74.0%	-73.2%
Broadway	33,773	28,170	28,585	27,511	25,951	25,477	26,726	27,285	27,349	-16.6%	-15.4%	-18.5%	-23.2%	-24.6%	-20.9%	-19.2%	-19.0%
am	7,916	6,807	6,792	6,480	6,053	5,825	6,349	6,542	6,512	-14.0%	-14.2%	-18.1%	-23.5%	-26.4%	-19.8%	-17.4%	-17.7%
md	9,108	7,000	7,239	6,826	6,094	6,065	6,520	6,773	6,899	-23.1%	-20.5%	-25.1%	-33.1%	-33.4%	-28.4%	-25.6%	-24.3%
pm	10,673	9,138	9,398	8,991	8,694	8,557	8,694	8,965	8,972	-14.4%	-11.9%	-15.8%	-18.5%	-19.8%	-18.5%	-16.0%	-15.9%
nt	6,076	5,225	5,156	5,214	5,110	5,030	5,163	5,005	4,966	-14.0%	-15.1%	-14.2%	-15.9%	-17.2%	-15.0%	-17.6%	-18.3%

		Daily Volumes								Percent Change							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
Amsterdam	12,033	7,318	7,711	7,099	6,696	6,671	7,265	7,388	7,096	-39.2%	-35.9%	-41.0%	-44.4%	-44.6%	-39.6%	-38.6%	-41.0%
am	1,684	1,036	1,020	897	955	897	922	1,133	983	-38.5%	-39.4%	-46.7%	-43.3%	-46.7%	-45.2%	-32.7%	-41.6%
md	3,278	1,822	1,845	1,684	1,693	1,748	1,950	1,891	1,701	-44.4%	-43.7%	-48.6%	-48.4%	-46.7%	-40.5%	-42.3%	-48.1%
pm	5,264	3,502	3,862	3,352	2,815	2,992	3,155	3,349	3,464	-33.5%	-26.6%	-36.3%	-46.5%	-43.2%	-40.1%	-36.4%	-34.2%
nt	1,807	958	984	1,166	1,233	1,034	1,238	1,015	948	-47.0%	-45.5%	-35.5%	-31.8%	-42.8%	-31.5%	-43.8%	-47.5%
Columbus Ave	8,945	9,615	9,955	9,318	9,112	9,237	9,233	9,751	9,551	7.5%	11.3%	4.2%	1.9%	3.3%	3.2%	9.0%	6.8%
am	2,651	2,663	2,790	2,598	2,566	2,609	2,629	2,753	2,716	0.5%	5.2%	-2.0%	-3.2%	-1.6%	-0.8%	3.8%	2.5%
md	3,170	3,188	3,483	3,192	3,155	3,162	3,092	3,254	3,183	0.6%	9.9%	0.7%	-0.5%	-0.3%	-2.5%	2.6%	0.4%
pm	1,801	1,781	1,837	1,749	1,715	1,755	1,778	1,772	1,817	-1.1%	2.0%	-2.9%	-4.8%	-2.6%	-1.3%	-1.6%	0.9%
nt	1,323	1,983	1,845	1,779	1,676	1,711	1,734	1,972	1,835	49.9%	39.5%	34.5%	26.7%	29.3%	31.1%	49.1%	38.7%
Eighth Avenue	3,743	3,596	3,558	3,764	3,736	3,698	3,873	3,491	3,662	-3.9%	-4.9%	0.6%	-0.2%	-1.2%	3.5%	-6.7%	-2.2%
am	643	698	664	770	932	871	921	633	768	8.6%	3.3%	19.8%	44.9%	35.5%	43.2%	-1.6%	19.4%
md	1,011	880	910	896	854	867	864	832	883	-13.0%	-10.0%	-11.4%	-15.5%	-14.2%	-14.5%	-17.7%	-12.7%
pm	1,253	1,182	1,166	1,212	1,159	1,182	1,240	1,198	1,177	-5.7%	-6.9%	-3.3%	-7.5%	-5.7%	-1.0%	-4.4%	-6.1%
nt	836	836	818	886	791	778	848	828	834	0.0%	-2.2%	6.0%	-5.4%	-6.9%	1.4%	-1.0%	-0.2%
EAST AVENUES	171,207	119,564	118,443	108,711	102,097	100,983	105,050	115,424	111,816	-30.2%	-30.8%	-36.5%	-40.4%	-41.0%	-38.6%	-32.6%	-34.7%
Fifth Avenue	12,394	9,575	9,598	9,055	8,318	8,258	8,660	9,327	9,051	-22.7%	-22.6%	-26.9%	-32.9%	-33.4%	-30.1%	-24.7%	-27.0%
am	3,768	3,168	3,166	2,981	2,738	2,691	2,945	3,068	2,977	-15.9%	-16.0%	-20.9%	-27.3%	-28.6%	-21.8%	-18.6%	-21.0%
md	4,709	3,392	3,497	3,222	2,939	2,927	3,073	3,330	3,233	-28.0%	-25.7%	-31.6%	-37.6%	-37.8%	-34.7%	-29.3%	-31.3%
pm	2,150	1,606	1,634	1,582	1,465	1,493	1,530	1,614	1,556	-25.3%	-24.0%	-26.4%	-31.9%	-30.6%	-28.8%	-24.9%	-27.6%
nt	1,767	1,409	1,301	1,270	1,176	1,147	1,112	1,315	1,285	-20.3%	-26.4%	-28.1%	-33.4%	-35.1%	-37.1%	-25.6%	-27.3%
Madison Avenue	3,727	3,171	3,231	3,118	2,959	2,878	2,926	3,140	3,110	-14.9%	-13.3%	-16.3%	-20.6%	-22.8%	-21.5%	-15.7%	-16.6%
am	462	433	432	424	428	430	437	420	430	-6.3%	-6.5%	-8.2%	-7.4%	-6.9%	-5.4%	-9.1%	-6.9%
md	936	867	883	855	857	859	856	829	842	-7.4%	-5.7%	-8.7%	-8.4%	-8.2%	-8.5%	-11.4%	-10.0%
pm	2,091	1,679	1,716	1,653	1,481	1,414	1,431	1,694	1,651	-19.7%	-17.9%	-20.9%	-29.2%	-32.4%	-31.6%	-19.0%	-21.0%
nt	238	192	200	186	193	175	202	197	187	-19.3%	-16.0%	-21.8%	-18.9%	-26.5%	-15.1%	-17.2%	-21.4%
Park Avenue	18,411	14,583	14,538	14,191	12,968	12,668	13,336	13,959	14,000	-20.8%	-21.0%	-22.9%	-29.6%	-31.2%	-27.6%	-24.2%	-24.0%
am	4,828	3,901	3,905	3,799	3,558	3,353	3,652	3,772	3,719	-19.2%	-19.1%	-21.3%	-26.3%	-30.6%	-24.4%	-21.9%	-23.0%
md	4,860	3,590	3,676	3,420	3,176	3,012	3,205	3,533	3,471	-26.1%	-24.4%	-29.6%	-34.7%	-38.0%	-34.1%	-27.3%	-28.6%
pm	5,188	4,242	4,302	4,177	3,884	3,860	4,003	4,009	4,164	-18.2%	-17.1%	-19.5%	-25.1%	-25.6%	-22.8%	-22.7%	-19.7%

		Daily Volumes								Percent Change							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
nt	3,535	2,850	2,655	2,795	2,350	2,443	2,476	2,645	2,646	-19.4%	-24.9%	-20.9%	-33.5%	-30.9%	-30.0%	-25.2%	-25.1%
Lexington Avenue	14,798	10,597	10,671	9,140	7,982	7,718	8,448	10,751	9,586	-28.4%	-27.9%	-38.2%	-46.1%	-47.8%	-42.9%	-27.3%	-35.2%
am	3,677	2,293	2,329	2,135	1,879	1,863	1,978	2,323	2,206	-37.6%	-36.7%	-41.9%	-48.9%	-49.3%	-46.2%	-36.8%	-40.0%
md	6,294	4,900	4,820	3,817	3,177	3,029	3,415	4,983	4,135	-22.1%	-23.4%	-39.4%	-49.5%	-51.9%	-45.7%	-20.8%	-34.3%
pm	2,134	1,432	1,462	1,474	1,363	1,414	1,449	1,481	1,422	-32.9%	-31.5%	-30.9%	-36.1%	-33.7%	-32.1%	-30.6%	-33.4%
nt	2,693	1,972	2,060	1,714	1,563	1,412	1,606	1,964	1,823	-26.8%	-23.5%	-36.4%	-42.0%	-47.6%	-40.4%	-27.1%	-32.3%
Third Avenue	14,212	10,537	10,490	9,783	8,558	8,341	8,795	10,054	10,530	-25.9%	-26.2%	-31.2%	-39.8%	-41.3%	-38.1%	-29.3%	-25.9%
am	2,388	1,990	1,826	1,834	1,676	1,553	1,659	1,859	1,983	-16.7%	-23.5%	-23.2%	-29.8%	-35.0%	-30.5%	-22.2%	-17.0%
md	5,207	3,833	3,842	3,554	2,811	2,795	2,920	3,599	3,901	-26.4%	-26.2%	-31.7%	-46.0%	-46.3%	-43.9%	-30.9%	-25.1%
pm	4,658	3,304	3,352	3,005	2,747	2,702	2,905	3,149	3,138	-29.1%	-28.0%	-35.5%	-41.0%	-42.0%	-37.6%	-32.4%	-32.6%
nt	1,959	1,410	1,470	1,390	1,324	1,291	1,311	1,447	1,508	-28.0%	-25.0%	-29.0%	-32.4%	-34.1%	-33.1%	-26.1%	-23.0%
Second Avenue	39,264	17,362	16,626	14,152	13,485	13,301	14,184	15,297	15,013	-55.8%	-57.7%	-64.0%	-65.7%	-66.1%	-63.9%	-61.0%	-61.8%
am	8,739	5,211	5,052	4,696	5,206	5,032	5,261	4,719	4,719	-40.4%	-42.2%	-46.3%	-40.4%	-42.4%	-39.8%	-46.0%	-46.0%
md	11,336	5,009	4,687	3,681	3,266	3,394	3,674	4,618	4,135	-55.8%	-58.7%	-67.5%	-71.2%	-70.1%	-67.6%	-59.3%	-63.5%
pm	8,793	3,753	3,710	3,362	3,274	3,143	3,337	3,437	3,473	-57.3%	-57.8%	-61.8%	-62.8%	-64.3%	-62.0%	-60.9%	-60.5%
nt	10,396	3,389	3,177	2,413	1,739	1,732	1,912	2,523	2,686	-67.4%	-69.4%	-76.8%	-83.3%	-83.3%	-81.6%	-75.7%	-74.2%
First Avenue	5,642	5,019	5,272	4,967	5,276	5,111	5,418	5,193	5,061	-11.0%	-6.6%	-12.0%	-6.5%	-9.4%	-4.0%	-8.0%	-10.3%
am	1,709	1,527	1,557	1,499	1,943	1,770	2,000	1,549	1,461	-10.6%	-8.9%	-12.3%	13.7%	3.6%	17.0%	-9.4%	-14.5%
md	1,319	1,416	1,407	1,341	1,226	1,226	1,358	1,432	1,431	7.4%	6.7%	1.7%	-7.1%	-7.1%	3.0%	8.6%	8.5%
pm	1,724	1,436	1,670	1,547	1,585	1,387	1,443	1,546	1,568	-16.7%	-3.1%	-10.3%	-8.1%	-19.5%	-16.3%	-10.3%	-9.0%
nt	890	640	638	580	522	728	617	666	601	-28.1%	-28.3%	-34.8%	-41.3%	-18.2%	-30.7%	-25.2%	-32.5%
York Avenue	23,046	13,733	13,591	12,481	11,842	11,793	12,225	13,239	12,517	-40.4%	-41.0%	-45.8%	-48.6%	-48.8%	-47.0%	-42.6%	-45.7%
am	4,385	2,576	2,545	2,363	2,226	2,188	2,248	2,482	2,312	-41.3%	-42.0%	-46.1%	-49.2%	-50.1%	-48.7%	-43.4%	-47.3%
md	6,974	4,392	4,584	3,964	3,652	3,690	3,922	4,236	4,125	-37.0%	-34.3%	-43.2%	-47.6%	-47.1%	-43.8%	-39.3%	-40.9%
pm	4,325	2,728	2,446	2,267	2,030	2,153	2,048	2,669	2,281	-36.9%	-43.4%	-47.6%	-53.1%	-50.2%	-52.6%	-38.3%	-47.3%
nt	7,362	4,037	4,016	3,887	3,934	3,762	4,007	3,852	3,799	-45.2%	-45.4%	-47.2%	-46.6%	-48.9%	-45.6%	-47.7%	-48.4%
Ed Koch Queensboro Ramp	39,713	34,987	34,426	31,824	30,709	30,915	31,058	34,464	32,948	-11.9%	-13.3%	-19.9%	-22.7%	-22.2%	-21.8%	-13.2%	-17.0%
am	7,646	5,244	5,284	5,092	5,084	5,235	5,223	5,196	5,172	-31.4%	-30.9%	-33.4%	-33.5%	-31.5%	-31.7%	-32.0%	-32.4%
md	15,217	12,289	11,930	10,586	9,709	9,733	9,910	11,908	11,075	-19.2%	-21.6%	-30.4%	-36.2%	-36.0%	-34.9%	-21.7%	-27.2%
pm	7,954	5,429	5,402	4,908	4,911	4,748	4,928	5,368	5,018	-31.7%	-32.1%	-38.3%	-38.3%	-40.3%	-38.0%	-32.5%	-36.9%

		Daily Volumes								Percent Change							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
nt	8,896	12,025	11,810	11,238	11,005	11,199	10,997	11,992	11,683	35.2%	32.8%	26.3%	23.7%	25.9%	23.6%	34.8%	31.3%
Queens	268,300	226,698	225,076	226,946	237,025	235,706	238,171	222,545	223,742	-15.5%	-16.1%	-15.4%	-11.7%	-12.1%	-11.2%	-17.1%	-16.6%
Inbound	142,596	125,030	123,032	130,029	136,799	136,652	137,229	123,298	125,520	-12.3%	-13.7%	-8.8%	-4.1%	-4.2%	-3.8%	-13.5%	-12.0%
Outbound	125,702	101,665	98,264	96,913	100,223	99,051	100,940	99,242	98,222	-19.1%	-21.8%	-22.9%	-20.3%	-21.2%	-19.7%	-21.0%	-21.9%
Ed Koch Queensboro Bridge	186,973	152,370	150,390	130,569	113,066	112,169	113,833	148,715	139,638	-18.5%	-19.6%	-30.2%	-39.5%	-40.0%	-39.1%	-20.5%	-25.3%
am	38,293	32,207	31,839	28,658	26,733	26,384	26,670	31,281	29,350	-15.9%	-16.9%	-25.2%	-30.2%	-31.1%	-30.4%	-18.3%	-23.4%
md	58,127	47,256	46,789	42,846	37,359	37,496	37,849	46,252	44,088	-18.7%	-19.5%	-26.3%	-35.7%	-35.5%	-34.9%	-20.4%	-24.2%
pm	40,997	32,279	31,961	27,824	25,524	24,984	25,738	31,564	28,913	-21.3%	-22.0%	-32.1%	-37.7%	-39.1%	-37.2%	-23.0%	-29.5%
nt	49,556	40,628	39,801	31,241	23,450	23,305	23,576	39,618	37,287	-18.0%	-19.7%	-37.0%	-52.7%	-53.0%	-52.4%	-20.1%	-24.8%
Queens-Midtown Tunnel	81,327	74,328	74,686	96,377	123,959	123,537	124,338	73,830	84,104	-8.6%	-8.2%	18.5%	52.4%	51.9%	52.9%	-9.2%	3.4%
am	19,352	18,072	18,054	20,872	23,344	23,234	23,540	18,078	20,139	-6.6%	-6.7%	7.9%	20.6%	20.1%	21.6%	-6.6%	4.1%
md	28,738	26,581	26,541	29,530	36,234	35,960	36,463	26,369	28,528	-7.5%	-7.6%	2.8%	26.1%	25.1%	26.9%	-8.2%	-0.7%
pm	19,615	17,474	17,660	21,456	25,582	25,387	25,443	17,326	20,395	-10.9%	-10.0%	9.4%	30.4%	29.4%	29.7%	-11.7%	4.0%
nt	13,622	12,201	12,431	24,519	38,799	38,956	38,892	12,057	15,042	-10.4%	-8.7%	80.0%	184.8%	186.0%	185.5%	-11.5%	10.4%
Brooklyn	391,603	350,510	349,383	333,372	314,584	309,743	311,458	344,495	339,505	-10.5%	-10.8%	-14.9%	-19.7%	-20.9%	-20.5%	-12.0%	-13.3%
Inbound	187,486	168,154	164,160	152,790	138,880	137,092	137,368	165,509	160,018	-10.3%	-12.4%	-18.5%	-25.9%	-26.9%	-26.7%	-11.7%	-14.7%
Outbound	204,111	182,347	177,994	180,571	175,696	172,644	174,082	178,980	179,487	-10.7%	-12.8%	-11.5%	-13.9%	-15.4%	-14.7%	-12.3%	-12.1%
Williamsburg Bridge	122,207	101,542	101,260	93,732	78,130	75,951	78,004	98,789	97,247	-16.9%	-17.1%	-23.3%	-36.1%	-37.9%	-36.2%	-19.2%	-20.4%
am	25,067	20,643	20,367	19,853	18,651	18,153	18,242	20,011	19,907	-17.6%	-18.7%	-20.8%	-25.6%	-27.6%	-27.2%	-20.2%	-20.6%
md	34,143	28,314	28,522	27,192	23,711	23,398	24,101	27,740	27,460	-17.1%	-16.5%	-20.4%	-30.6%	-31.5%	-29.4%	-18.8%	-19.6%
pm	30,486	26,445	26,212	24,704	20,928	20,440	20,894	25,801	25,100	-13.3%	-14.0%	-19.0%	-31.4%	-33.0%	-31.5%	-15.4%	-17.7%
nt	32,511	26,140	26,159	21,983	14,840	13,960	14,767	25,237	24,780	-19.6%	-19.5%	-32.4%	-54.4%	-57.1%	-54.6%	-22.4%	-23.8%
Manhattan Bridge	88,594	68,593	68,021	55,533	38,195	35,697	36,567	66,289	61,163	-22.6%	-23.2%	-37.3%	-56.9%	-59.7%	-58.7%	-25.2%	-31.0%
am	23,956	18,859	18,743	15,548	11,715	11,042	10,791	18,221	16,299	-21.3%	-21.8%	-35.1%	-51.1%	-53.9%	-55.0%	-23.9%	-32.0%
md	24,322	19,680	19,369	16,184	10,759	10,020	10,688	18,987	17,432	-19.1%	-20.4%	-33.5%	-55.8%	-58.8%	-56.1%	-21.9%	-28.3%
pm	21,763	16,699	16,736	13,701	9,699	8,974	9,219	16,080	14,654	-23.3%	-23.1%	-37.0%	-55.4%	-58.8%	-57.6%	-26.1%	-32.7%
nt	18,553	13,355	13,173	10,100	6,022	5,661	5,869	13,001	12,778	-28.0%	-29.0%	-45.6%	-67.5%	-69.5%	-68.4%	-29.9%	-31.1%
Brooklyn Bridge	121,147	119,354	118,751	113,780	99,005	97,657	96,384	118,810	116,878	-1.5%	-2.0%	-6.1%	-18.3%	-19.4%	-20.4%	-1.9%	-3.5%
am	24,876	24,638	24,551	24,001	22,907	22,683	22,419	24,480	24,203	-1.0%	-1.3%	-3.5%	-7.9%	-8.8%	-9.9%	-1.6%	-2.7%
md	33,856	33,162	32,970	31,695	27,286	27,164	26,574	32,775	32,011	-2.0%	-2.6%	-6.4%	-19.4%	-19.8%	-21.5%	-3.2%	-5.4%

		Daily Volumes								Percent Change							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
<i>pm</i>	27,157	26,147	25,932	25,090	23,246	23,114	22,988	25,899	25,233	-3.7%	-4.5%	-7.6%	-14.4%	-14.9%	-15.4%	-4.6%	-7.1%
<i>nt</i>	35,258	35,407	35,298	32,994	25,566	24,696	24,403	35,656	35,431	0.4%	0.1%	-6.4%	-27.5%	-30.0%	-30.8%	1.1%	0.5%
Hugh Carey Tunnel	59,655	61,021	61,351	70,327	99,254	100,438	100,503	60,607	64,217	2.3%	2.8%	17.9%	66.4%	68.4%	68.5%	1.6%	7.7%
<i>am</i>	16,739	17,349	17,445	18,493	21,045	21,096	21,440	17,352	18,243	3.6%	4.2%	10.5%	25.7%	26.0%	28.1%	3.7%	9.0%
<i>md</i>	18,798	18,663	18,669	20,545	28,999	28,830	28,990	18,450	19,849	-0.7%	-0.7%	9.3%	54.3%	53.4%	54.2%	-1.9%	5.6%
<i>pm</i>	18,908	18,624	18,590	20,647	25,589	25,367	25,619	18,468	19,745	-1.5%	-1.7%	9.2%	35.3%	34.2%	35.5%	-2.3%	4.4%
<i>nt</i>	5,210	6,385	6,647	10,642	23,621	25,145	24,454	6,337	6,380	22.6%	27.6%	104.3%	353.4%	382.6%	369.4%	21.6%	22.5%
New Jersey	223,898	188,240	185,513	193,380	197,992	190,755	196,409	181,759	185,166	-15.9%	-17.1%	-13.6%	-11.6%	-14.8%	-12.3%	-18.8%	-17.3%
Inbound	109,602	92,070	86,219	100,791	107,810	103,257	106,560	88,196	93,085	-16.0%	-21.3%	-8.0%	-1.6%	-5.8%	-2.8%	-19.5%	-15.1%
Outbound	114,290	96,168	91,173	92,588	90,177	87,493	89,844	93,558	92,081	-15.9%	-20.2%	-19.0%	-21.1%	-23.4%	-21.4%	-18.1%	-19.4%
Holland Tunnel	108,683	93,896	92,321	93,934	95,129	91,000	93,926	90,220	91,048	-13.6%	-15.1%	-13.6%	-12.5%	-16.3%	-13.6%	-17.0%	-16.2%
<i>am</i>	23,564	21,004	20,749	20,935	20,961	20,459	20,478	20,454	20,515	-10.9%	-11.9%	-11.2%	-11.0%	-13.2%	-13.1%	-13.2%	-12.9%
<i>md</i>	29,507	25,253	24,765	24,970	25,026	23,860	25,310	24,329	24,265	-14.4%	-16.1%	-15.4%	-15.2%	-19.1%	-14.2%	-17.5%	-17.8%
<i>pm</i>	23,778	20,848	20,700	20,854	21,078	20,120	20,216	20,366	20,251	-12.3%	-12.9%	-12.3%	-11.4%	-15.4%	-15.0%	-14.3%	-14.8%
<i>nt</i>	31,834	26,791	26,107	27,175	28,064	26,561	27,922	25,071	26,017	-15.8%	-18.0%	-14.6%	-11.8%	-16.6%	-12.3%	-21.2%	-18.3%
Lincoln Tunnel	115,215	94,344	93,192	99,446	102,863	99,755	102,483	91,539	94,118	-18.1%	-19.1%	-13.7%	-10.7%	-13.4%	-11.1%	-20.5%	-18.3%
<i>am</i>	24,429	21,961	21,786	22,644	23,212	22,660	22,816	21,565	22,136	-10.1%	-10.8%	-7.3%	-5.0%	-7.2%	-6.6%	-11.7%	-9.4%
<i>md</i>	33,640	26,859	26,371	27,640	28,354	27,110	28,984	25,969	26,760	-20.2%	-21.6%	-17.8%	-15.7%	-19.4%	-13.8%	-22.8%	-20.5%
<i>pm</i>	26,946	22,931	22,784	23,454	23,263	22,480	22,804	22,679	22,958	-14.9%	-15.4%	-13.0%	-13.7%	-16.6%	-15.4%	-15.8%	-14.8%
<i>nt</i>	30,200	22,593	22,251	25,708	28,034	27,505	27,879	21,326	22,264	-25.2%	-26.3%	-14.9%	-7.2%	-8.9%	-7.7%	-29.4%	-26.3%



Final EA Appendix 4A2, Table 4A.2-2. Summary – Vehicle-Miles Traveled (2023) – with Adopted Toll Structure Added

Daily VMT										Percent Change							
Scenario										Scenario							
Scenario	No Action	A	B	C	D	E	F	G	Adopted Toll Structure	A	B	C	D	E	F	G	Adopted Toll Structure
(by Screen Line/ Crossing)																	
Manhattan CBD	3,244,791	2,993,214	2,998,489	2,984,080	2,963,211	2,946,339	3,016,013	2,970,819	2,955,907	-7.8%	-7.6%	-8.0%	-8.7%	-9.2%	-7.1%	-8.4%	-8.9%
New York City	47,131,752	46,743,670	46,784,237	46,572,720	46,461,121	46,404,913	46,578,412	46,713,541	46,649,897	-0.8%	-0.7%	-1.2%	-1.4%	-1.5%	-1.2%	-0.9%	-1.0%
Manhattan CBD	3,244,791	2,993,214	2,998,489	2,984,080	2,963,211	2,946,339	3,016,013	2,970,819	2,955,907	-7.8%	-7.6%	-8.0%	-8.7%	-9.2%	-7.1%	-8.4%	-8.9%
CBD Core	1,217,727	1,150,843	1,152,471	1,161,407	1,159,162	1,147,545	1,183,476	1,142,077	1,138,038	-5.5%	-5.4%	-4.6%	-4.8%	-5.8%	-2.8%	-6.2%	-6.5%
Peripheral Highways (south of 60th Street; excluded from the toll)	2,027,064	1,842,371	1,846,018	1,822,673	1,804,049	1,798,794	1,832,537	1,828,742	1,817,869	-9.1%	-8.9%	-10.1%	-11.0%	-11.3%	-9.6%	-9.8%	-10.3%
RT9A - S of 60th	610,657	510,785	513,887	493,396	485,167	486,404	501,603	508,951	496,172	-16.4%	-15.8%	-19.2%	-20.5%	-20.3%	-17.9%	-16.7%	-18.7%
FDR - S of 60th	720,682	725,459	729,706	718,820	705,903	710,555	721,421	727,101	723,376	0.7%	1.3%	-0.3%	-2.1%	-1.4%	0.1%	0.9%	0.4%
Bridge & Tunnels - S of 60th*	695,725	606,127	602,425	610,457	612,979	601,835	609,513	592,690	598,321	-12.9%	-13.4%	-12.3%	-11.9%	-13.5%	-12.4%	-14.8%	-14.0%
Zone 1	2,218,077	2,049,561	2,049,528	2,004,366	1,955,714	1,944,168	1,962,310	2,031,243	2,020,291	-7.6%	-7.6%	-9.6%	-11.8%	-12.3%	-11.5%	-8.4%	-8.9%
Manhattan: 60th St - 82nd St	687,178	611,298	614,228	596,527	579,197	576,383	588,785	605,889	601,995	-11.0%	-10.6%	-13.2%	-15.7%	-16.1%	-14.3%	-11.8%	-12.4%
Long Island City	634,642	576,941	574,378	573,434	584,367	581,662	585,542	569,080	570,837	-9.1%	-9.5%	-9.6%	-7.9%	-8.3%	-7.7%	-10.3%	-10.1%
Downtown Brooklyn	507,721	490,094	489,809	469,669	438,875	434,721	434,188	487,809	480,437	-3.5%	-3.5%	-7.5%	-13.6%	-14.4%	-14.5%	-3.9%	-5.4%
Williamsburg	388,536	371,228	371,113	364,736	353,275	351,402	353,795	368,465	367,022	-4.5%	-4.5%	-6.1%	-9.1%	-9.6%	-8.9%	-5.2%	-5.5%
Zone 2	6,660,953	6,626,001	6,630,016	6,588,313	6,578,676	6,568,162	6,596,549	6,615,308	6,597,042	-0.5%	-0.5%	-1.1%	-1.2%	-1.4%	-1.0%	-0.7%	-1.0%
Manhattan: 82nd St - 126th St	1,683,098	1,664,870	1,674,332	1,654,877	1,629,759	1,624,558	1,644,204	1,674,029	1,661,651	-1.1%	-0.5%	-1.7%	-3.2%	-3.5%	-2.3%	-0.5%	-1.3%
Inner Brooklyn	2,382,944	2,364,550	2,364,723	2,342,062	2,352,282	2,350,184	2,351,128	2,356,477	2,347,680	-0.8%	-0.8%	-1.7%	-1.3%	-1.4%	-1.3%	-1.1%	-1.5%
Inner Queens	2,594,911	2,596,581	2,590,961	2,591,374	2,596,635	2,593,420	2,601,217	2,584,802	2,587,711	0.1%	-0.2%	-0.1%	0.1%	-0.1%	0.2%	-0.4%	-0.3%
Zone 3	35,007,931	35,074,894	35,106,204	34,995,961	34,963,520	34,946,244	35,003,540	35,096,171	35,076,657	0.2%	0.3%	0.0%	-0.1%	-0.2%	0.0%	0.3%	0.2%
Upper Manhattan: Above 126th St	1,668,523	1,666,606	1,673,122	1,655,734	1,629,152	1,623,144	1,633,549	1,676,495	1,657,746	-0.1%	0.3%	-0.8%	-2.4%	-2.7%	-2.1%	0.5%	-0.6%
Outer Brooklyn	6,682,723	6,685,405	6,695,192	6,683,132	6,677,077	6,672,230	6,674,480	6,701,884	6,702,651	0.0%	0.2%	0.0%	-0.1%	-0.2%	-0.1%	0.3%	0.3%
Outer Queens	15,180,594	15,139,719	15,150,768	15,086,757	15,101,340	15,099,256	15,119,805	15,121,886	15,120,999	-0.3%	-0.2%	-0.6%	-0.5%	-0.5%	-0.4%	-0.4%	-0.4%
Staten Island	3,986,457	4,071,055	4,078,180	4,078,983	4,076,004	4,085,745	4,080,602	4,098,570	4,094,175	2.1%	2.3%	2.3%	2.2%	2.5%	2.4%	2.8%	2.7%
Bronx	7,489,634	7,512,109	7,508,942	7,491,355	7,479,947	7,465,869	7,495,104	7,497,336	7,501,086	0.3%	0.3%	0.0%	-0.1%	-0.3%	0.1%	0.1%	0.2%
New York State	122,186,497	121,752,302	121,789,089	121,438,634	121,227,956	121,111,122	121,464,091	121,662,622	121,544,202	-0.4%	-0.3%	-0.6%	-0.8%	-0.9%	-0.6%	-0.4%	-0.5%
New York City	47,131,752	46,743,670	46,784,237	46,572,720	46,461,121	46,404,913	46,578,412	46,713,541	46,649,897	-0.8%	-0.7%	-1.2%	-1.4%	-1.5%	-1.2%	-0.9%	-1.0%
Long Island	41,585,545	41,609,407	41,595,736	41,546,248	41,503,705	41,497,676	41,598,789	41,573,420	41,565,355	0.1%	0.0%	-0.1%	-0.2%	-0.2%	0.0%	0.0%	0.0%
Upstate	33,469,200	33,399,225	33,409,116	33,319,666	33,263,130	33,208,533	33,286,890	33,375,661	33,328,950	-0.2%	-0.2%	-0.4%	-0.6%	-0.8%	-0.5%	-0.3%	-0.4%
Connecticut	34,909,870	34,878,673	34,856,848	34,830,279	34,846,493	34,842,671	34,893,239	34,844,682	34,812,699	-0.1%	-0.2%	-0.2%	-0.2%	-0.2%	0.0%	-0.2%	-0.3%
New Jersey	97,578,100	97,594,939	97,590,826	97,748,567	97,733,034	97,665,181	97,768,338	97,642,310	97,638,773	0.0%	0.0%	0.2%	0.2%	0.1%	0.2%	0.1%	0.1%
Total	254,674,467	254,225,914	254,236,763	254,017,480	253,807,483	253,618,974	254,125,668	254,149,614	253,995,674	-0.2%	-0.2%	-0.3%	-0.3%	-0.4%	-0.2%	-0.2%	-0.3%



Final EA Appendix 4A2, Table 4A.2-3. Transit Boardings by Mode (2023) – with Adopted Toll Structure Added

	Transit Boardings (AM Period)									Change								Percent Change							
Mode	Scenario									Scenario								Scenario							
	No Action	A	B	C	D	E	F	G	Adopted Toll Structure	A	B	C	D	E	F	G	Adopted Toll Structure	A	B	C	D	E	F	G	Adopted Toll Structure
Total Volume	6,352,866	6,432,577	6,434,921	6,449,184	6,457,649	6,465,941	6,461,019	6,438,473	6,443,328	79,711	82,055	96,318	104,784	113,075	108,154	85,607	90,462	1.3%	1.3%	1.5%	1.6%	1.8%	1.7%	1.3%	1.4%
Commuter Rail	454,520	456,756	457,863	459,632	461,635	463,109	462,013	458,867	459,622	2,236	3,343	5,112	7,115	8,589	7,493	4,346	5,102	0.5%	0.7%	1.1%	1.6%	1.9%	1.6%	1.0%	1.1%
Long Island Rail Road	142,651	143,452	143,989	144,244	144,733	145,544	144,560	144,084	144,103	802	1,339	1,593	2,083	2,894	1,910	1,433	1,452	0.6%	0.9%	1.1%	1.5%	2.0%	1.3%	1.0%	1.0%
Metro-North Railroad	152,203	153,128	153,437	154,108	154,850	154,296	155,020	153,491	154,348	925	1,234	1,905	2,647	2,093	2,817	1,288	2,145	0.6%	0.8%	1.3%	1.7%	1.4%	1.9%	0.8%	1.4%
New Jersey Transit Rail	159,666	160,175	160,437	161,280	162,051	163,268	162,433	161,292	161,171	509	770	1,614	2,385	3,602	2,767	1,626	1,505	0.3%	0.5%	1.0%	1.5%	2.3%	1.7%	1.0%	0.9%
Urban Rail	3,151,234	3,197,895	3,200,431	3,205,407	3,212,195	3,215,961	3,212,751	3,202,009	3,203,315	46,661	49,197	54,173	60,961	64,727	61,517	50,775	52,081	1.5%	1.6%	1.7%	1.9%	2.1%	2.0%	1.6%	1.7%
NYCT Subway	3,005,224	3,050,101	3,052,683	3,056,840	3,063,552	3,066,614	3,063,577	3,053,144	3,054,862	44,877	47,459	51,616	58,328	61,390	58,353	47,920	49,638	1.5%	1.6%	1.7%	1.9%	2.0%	1.9%	1.6%	1.7%
PATH	133,736	134,860	134,691	135,588	135,818	136,438	136,206	135,934	135,500	1,124	955	1,852	2,082	2,702	2,471	2,198	1,764	0.8%	0.7%	1.4%	1.6%	2.0%	1.8%	1.6%	1.3%
SIRR	12,274	12,934	13,057	12,978	12,826	12,909	12,967	12,931	12,953	660	783	704	552	635	694	657	679	5.4%	6.4%	5.7%	4.5%	5.2%	5.7%	5.4%	5.5%
Bus	2,689,564	2,718,960	2,717,507	2,724,787	2,724,456	2,727,511	2,726,657	2,718,457	2,721,174	29,396	27,943	35,224	34,892	37,948	37,093	28,893	31,610	1.1%	1.0%	1.3%	1.3%	1.4%	1.4%	1.1%	1.2%
NYCT Bus	2,037,319	2,063,136	2,062,997	2,068,001	2,067,753	2,069,107	2,068,898	2,062,926	2,064,522	25,817	25,678	30,682	30,434	31,788	31,579	25,607	27,203	1.3%	1.3%	1.5%	1.5%	1.6%	1.6%	1.3%	1.3%
NJT Bus	471,109	474,344	473,456	474,079	474,279	476,321	475,663	474,260	475,149	3,235	2,347	2,970	3,170	5,212	4,554	3,151	4,040	0.7%	0.5%	0.6%	0.7%	1.1%	1.0%	0.7%	0.9%
Others	181,136	181,480	181,053	182,707	182,424	182,084	182,096	181,271	181,503	345	-83	1,571	1,288	948	960	136	367	0.2%	0.0%	0.9%	0.7%	0.5%	0.5%	0.1%	0.2%
Other Transit	57,548	58,966	59,120	59,358	59,363	59,360	59,598	59,140	59,216	1,418	1,572	1,810	1,815	1,811	2,050	1,592	1,668	2.5%	2.7%	3.1%	3.2%	3.1%	3.6%	2.8%	2.9%
Ferries	57,548	58,966	59,120	59,358	59,363	59,360	59,598	59,140	59,216	1,418	1,572	1,810	1,815	1,811	2,050	1,592	1,668	2.5%	2.7%	3.1%	3.2%	3.1%	3.6%	2.8%	2.9%
Roosevelt Tram	153	154	154	156	154	154	155	159	154	1	1	3	1	1	2	6	1	0.5%	0.8%	1.7%	0.6%	0.7%	1.0%	4.1%	0.7%

Final EA Appendix 4A2, Table 4A.2-4. Cordon Volumes by Station/Route (2023) – with Adopted Toll Structure Added

Cordon Volumes (AM Peak Period)										Percent Change															
	Baseline	Scenario								Scenario								Scenario							
	No Action	A	B	C	D	E	F	G	Adopted Toll Structure	A	B	C	D	E	F	G	Adopted Toll Structure	A	B	C	D	E	F	G	Adopted Toll Structure
Commuter Rail																									
Inbound	240,930	242,734	243,593	244,140	245,232	245,754	245,205	243,572	244,004	1,804	2,663	3,210	4,302	4,824	4,274	2,641	3,074	0.7%	1.1%	1.3%	1.8%	2.0%	1.8%	1.1%	1.3%
Long Island Rail Road (Penn Station)	83,870	84,697	84,929	84,903	85,326	85,825	85,285	84,960	84,720	827	1,059	1,033	1,456	1,955	1,416	1,091	850	1.0%	1.3%	1.2%	1.7%	2.3%	1.7%	1.3%	1.0%
Metro-North Railroad (Grand Central Terminal)	97,340	97,832	98,426	99,003	99,215	98,861	99,258	98,133	98,826	492	1,086	1,663	1,875	1,521	1,918	793	1,486	0.5%	1.1%	1.7%	1.9%	1.6%	2.0%	0.8%	1.5%
New Jersey Transit (New York - Penn Station)	59,721	60,205	60,239	60,235	60,691	61,068	60,662	60,478	60,458	484	518	514	970	1,348	941	757	738	0.8%	0.9%	0.9%	1.6%	2.3%	1.6%	1.3%	1.2%
NYCT Subway																									
Inbound	878,509	891,951	892,551	894,951	898,214	899,469	898,532	892,734	893,352	13,442	14,043	16,442	19,705	20,960	20,023	14,225	14,844	1.5%	1.6%	1.9%	2.2%	2.4%	2.3%	1.6%	1.7%
60th Street Cordon	276,917	280,723	280,491	281,147	282,960	283,386	282,138	280,980	280,660	3,806	3,575	4,230	6,043	6,470	5,221	4,063	3,743	1.4%	1.3%	1.5%	2.2%	2.3%	1.9%	1.5%	1.4%
Broadway (1,2,3)	74,725	75,638	75,573	75,834	76,444	76,571	76,077	75,661	75,685	913	848	1,109	1,719	1,846	1,352	936	960	1.2%	1.1%	1.5%	2.3%	2.5%	1.8%	1.3%	1.3%
8th Avenue (A, C, B, D)	88,153	89,321	89,270	89,419	89,950	90,086	89,703	89,413	89,270	1,168	1,117	1,266	1,797	1,933	1,550	1,260	1,117	1.3%	1.3%	1.4%	2.0%	2.2%	1.8%	1.4%	1.3%
Lexington Avenue (4, 5, 6)	89,537	90,920	90,841	91,003	91,510	91,610	91,460	91,015	90,928	1,383	1,303	1,465	1,973	2,073	1,922	1,478	1,390	1.5%	1.5%	1.6%	2.2%	2.3%	2.1%	1.7%	1.6%
2nd Avenue (Q)	24,502	24,843	24,808	24,891	25,055	25,119	24,898	24,890	24,778	342	307	390	553	618	397	389	277	1.4%	1.3%	1.6%	2.3%	2.5%	1.6%	1.6%	1.1%
Queens Cordon	249,675	254,348	253,872	254,674	255,134	256,033	255,951	254,032	254,302	4,673	4,198	4,999	5,460	6,358	6,276	4,357	4,627	1.9%	1.7%	2.0%	2.2%	2.5%	2.5%	1.7%	1.9%
63rd Street (F)	53,897	54,770	54,677	54,762	54,801	54,970	54,909	54,829	54,759	874	780	865	904	1,073	1,012	933	862	1.6%	1.4%	1.6%	1.7%	2.0%	1.9%	1.7%	1.6%
60th Street (R)	18,272	18,816	18,772	18,907	18,905	19,073	19,062	18,805	18,859	544	500	635	633	801	790	533	587	3.0%	2.7%	3.5%	3.5%	4.4%	4.3%	2.9%	3.2%
60th Street (N, W)	30,668	31,268	31,140	31,314	31,370	31,424	31,476	31,158	31,225	600	472	647	703	756	808	490	557	2.0%	1.5%	2.1%	2.3%	2.5%	2.6%	1.6%	1.8%
53rd Street (E, M)	78,555	79,837	79,848	80,008	80,143	80,444	80,400	79,787	79,950	1,282	1,293	1,453	1,588	1,889	1,845	1,232	1,395	1.6%	1.6%	1.8%	2.0%	2.4%	2.3%	1.6%	1.8%
Steinway Tunnel (7)	68,283	69,656	69,436	69,683	69,915	70,122	70,104	69,452	69,509	1,373	1,153	1,400	1,632	1,839	1,821	1,169	1,225	2.0%	1.7%	2.1%	2.4%	2.7%	2.7%	1.7%	1.8%
Brooklyn Cordon	351,917	356,879	358,188	359,130	360,120	360,050	360,443	357,722	358,390	4,962	6,271	7,213	8,203	8,133	8,526	5,805	6,473	1.4%	1.8%	2.0%	2.3%	2.3%	2.4%	1.6%	1.8%
14th Street (L)	42,607	43,209	43,337	43,466	43,573	43,562	43,583	43,316	43,317	602	730	859	966	955	976	709	710	1.4%	1.7%	2.0%	2.3%	2.2%	2.3%	1.7%	1.7%
Williamsburg Bridge (J, M, Z)	37,216	37,924	38,050	38,256	38,366	38,408	38,411	38,070	38,066	708	834	1,040	1,150	1,193	1,195	854	850	1.9%	2.2%	2.8%	3.1%	3.2%	3.2%	2.3%	2.3%
Rutgers Street (F)	37,006	37,403	37,504	37,709	37,807	37,822	37,921	37,495	37,629	397	498	702	801	815	915	488	623	1.1%	1.3%	1.9%	2.2%	2.2%	2.5%	1.3%	1.7%
Manhattan Bridge (B, D, N, Q)	100,921	102,440	102,952	103,144	103,654	103,527	103,630	102,549	103,076	1,520	2,031	2,224	2,734	2,606	2,710	1,628	2,155	1.5%	2.0%	2.2%	2.7%	2.6%	2.7%	1.6%	2.1%
Cranberry Street (A, C)	66,013	66,783	66,866	67,001	67,063	67,061	67,173	66,976	66,901	770	854	988	1,050	1,049	1,160	963	888	1.2%	1.3%	1.5%	1.6%	1.6%	1.8%	1.5%	1.3%
Clark Street (2, 3)	29,316	29,788	29,874	29,944	29,992	30,073	30,030	29,845	29,845	472	557	628	676	757	714	529	529	1.6%	1.9%	2.1%	2.3%	2.6%	2.4%	1.8%	1.8%
Montague Street (R)	10,143	10,164	10,167	10,243	10,218	10,258	10,301	10,205	10,220	21	25	101	75	116	158	63	77	0.2%	0.2%	1.0%	0.7%	1.1%	1.6%	0.6%	0.8%
Joralmon Street (4, 5)	28,696	29,168	29,437	29,367	29,446	29,338	29,393	29,267	29,337	472	741	671	750	643	697	571	641	1.6%	2.6%	2.3%	2.6%	2.2%	2.4%	2.0%	2.2%
PATH																									
Inbound	112,505	113,767	113,566	114,289	114,542	115,239	115,042	114,476	114,147	1,262	1,061	1,784	2,038	2,735	2,537	1,972	1,643	1.1%	0.9%	1.6%	1.6%	2.4%	2.3%	1.8%	1.5%
Christopher Street	40,731	41,399	41,286	41,537	41,837	42,286	42,068	41,661	41,659	668	554	806	1,106	1,555	1,337	930	928	1.6%	1.4%	2.0%	2.7%	3.8%	3.3%	2.3%	2.3%
World Trade Center	71,773	72,368	72,280	72,752	72,705	72,953	72,974	72,815	72,488	595	507	978	932	1,179	1,201	1,042	715	0.8%	0.7%	1.4%	1.3%	1.6%	1.7%	1.5%	1.0%

Final EA Appendix 4A2, Table 4A.2-5. Change in Mode Share to the Manhattan CBD (2023) – with Adopted Toll Structure Added

	Daily Journeys									Percent Change							
Scenario	No Action	A	B	C	D	E	F	G	Adopted Toll Structure	A	B	C	D	E	F	G	Adopted Toll Structure
Total Person Journeys to CBD	1,923,709	1,923,389	1,926,803	1,924,490	1,918,125	1,919,494	1,924,087	1,922,925	1,925,209	0%	0%	0%	0%	0%	0%	0%	0.1%
Drive Alone	191,338	177,348	174,838	169,542	164,844	158,694	160,639	173,398	169,337	-7%	-9%	-11%	-14%	-17%	-16%	-9%	-11.5%
HOV / Shared Ride	143,494	143,308	141,797	141,450	140,446	137,800	139,564	143,075	141,831	0%	-1%	-1%	-2%	-4%	-3%	0%	-1.2%
Taxi / FHV	32,324	25,270	31,884	28,323	19,944	25,762	31,739	23,871	31,337	-22%	-1%	-12%	-38%	-20%	-2%	-26%	-3.1%
Commuter Rail	369,131	374,592	375,796	376,912	379,603	381,204	379,710	376,742	377,376	1%	2%	2%	3%	3%	3%	2%	2.2%
Other Transit (e.g., subway / bus)	1,131,771	1,147,036	1,147,670	1,152,765	1,157,977	1,161,024	1,157,362	1,150,352	1,150,151	1%	1%	2%	2%	3%	2%	2%	1.6%
Walk and Bike	51,958	51,873	50,891	51,547	51,227	51,059	51,138	51,648	51,259	0%	-2%	-1%	-1%	-2%	-2%	-1%	-1.3%
School Bus	3,693	3,962	3,927	3,951	4,084	3,951	3,935	3,839	3,918	7%	6%	7%	11%	7%	7%	4%	6.1%
Total Person Journeys from CBD	161,833	159,806	160,976	160,207	158,892	158,479	159,884	159,898	161,235	-1%	-1%	-1%	-2%	-2%	-1%	-1%	-0.4%
Drive Alone	13,638	12,441	12,446	12,085	12,025	11,535	11,800	12,389	12,132	-9%	-9%	-11%	-12%	-15%	-13%	-9%	-11.0%
HOV / Shared Ride	30,100	29,714	29,269	29,160	28,667	28,300	28,587	29,225	29,141	-1%	-3%	-3%	-5%	-6%	-5%	-3%	-3.2%
Taxi / FHV	4,366	3,184	4,168	3,669	2,372	3,124	3,916	2,960	3,983	-27%	-5%	-16%	-46%	-28%	-10%	-32%	-8.8%
Commuter Rail	3,120	2,954	2,960	3,007	2,951	3,019	2,927	3,060	2,974	-5%	-5%	-4%	-5%	-3%	-6%	-2%	-4.7%
Other Transit (e.g., subway / bus)	78,771	79,372	79,771	79,881	80,507	80,096	80,195	79,856	80,687	1%	1%	1%	2%	2%	2%	1%	2.4%
Walk and Bike	29,188	29,371	29,564	29,703	29,588	29,593	29,601	29,634	29,489	1%	1%	2%	1%	1%	1%	2%	1.0%
School Bus	2,650	2,770	2,798	2,702	2,782	2,812	2,858	2,774	2,829	5%	6%	2%	5%	6%	8%	5%	6.8%
Total Person Journeys within CBD	879,667	880,292	879,506	882,033	883,365	883,222	880,713	881,592	879,013	0%	0%	0%	0%	0%	0%	0%	-0.1%
Drive Alone	7,581	7,576	7,652	7,679	7,650	7,610	7,546	7,778	7,677	0%	1%	1%	1%	0%	0%	3%	1.3%
HOV / Shared Ride	26,570	26,798	27,222	27,220	27,024	26,846	26,607	27,705	27,141	1%	2%	2%	2%	1%	0%	4%	2.1%
Taxi / FHV	28,005	27,711	28,262	28,003	28,397	28,195	28,082	28,619	24,687	-1%	1%	0%	1%	1%	0%	2%	-11.8%
Commuter Rail										-	-	-	-	-	-	-	-
Other Transit (e.g., subway / bus)	240,385	241,162	239,319	241,255	242,475	242,522	241,327	239,993	242,838	0%	0%	0%	1%	1%	0%	0%	1.0%
Walk and Bike	572,877	572,877	572,805	573,716	573,689	573,977	573,110	573,376	572,496	0%	0%	0%	0%	0%	0%	0%	-0.1%
School Bus	4,249	4,168	4,246	4,160	4,130	4,072	4,041	4,121	4,174	-2%	0%	-2%	-3%	-4%	-5%	-3%	-1.8%

Final EA Appendix 4A2, Table 4A.2-6. Taxi and FHV Toll Volumes Entering/Leaving the Manhattan CBD by Screen Line/Crossing (2023) – with Adopted Toll Structure Added

	Daily Volumes									Percent Change							
	Scenario									Scenario							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
<i>(by Screen Line/ Crossing)</i>																	
Total	113,058	113,749	128,235	123,915	108,180	120,128	133,196	110,059	129,882	0.6%	13.4%	9.6%	-4.3%	6.3%	17.8%	-2.7%	14.9%
60th Street	39,536	36,877	45,022	45,026	37,509	43,401	50,894	34,730	46,959	-6.7%	13.9%	13.9%	-5.1%	9.8%	28.7%	-12.2%	18.8%
Inbound	21,015	20,019	24,298	25,149	21,748	24,771	28,755	18,992	25,908	-4.7%	15.6%	19.7%	3.5%	17.9%	36.8%	-9.6%	23.3%
Outbound	18,551	16,890	20,758	19,906	15,791	18,661	22,168	15,771	21,080	-9.0%	11.9%	7.3%	-14.9%	0.6%	19.5%	-15.0%	13.6%
FDR DRIVE+WEST SIDE HWY	23,612	18,074	22,638	22,250	16,844	20,638	25,349	16,906	23,365	-23.5%	-4.1%	-5.8%	-28.7%	-12.6%	7.4%	-28.4%	-1.0%
West Side Highway / Route 9A	10,965	8,425	10,350	9,694	6,992	8,839	10,899	7,945	10,582	-23.2%	-5.6%	-11.6%	-36.2%	-19.4%	-0.6%	-27.5%	-3.5%
FDR Drive	12,647	9,649	12,288	12,556	9,852	11,799	14,450	8,961	12,783	-23.7%	-2.8%	-0.7%	-22.1%	-6.7%	14.3%	-29.1%	1.1%
WEST AVENUES	6,720	4,749	6,108	5,172	4,408	5,320	6,114	4,499	5,738	-29.3%	-9.1%	-23.0%	-34.4%	-20.8%	-9.0%	-33.1%	-14.6%
West End Ave	946	626	813	623	340	506	728	545	849	-33.8%	-14.1%	-34.1%	-64.1%	-46.5%	-23.0%	-42.4%	-10.3%
Broadway	2,734	1,614	2,097	1,706	1,235	1,579	1,791	1,575	1,861	-41.0%	-23.3%	-37.6%	-54.8%	-42.2%	-34.5%	-42.4%	-31.9%
Amsterdam	1,292	1,227	1,602	1,406	1,475	1,732	1,895	1,156	1,515	-5.0%	24.0%	8.8%	14.2%	34.1%	46.7%	-10.5%	17.3%
Columbus Ave	1,258	694	903	635	449	518	660	636	701	-44.8%	-28.2%	-49.5%	-64.3%	-58.8%	-47.5%	-49.4%	-44.3%
Eighth Avenue	490	588	693	802	909	985	1,040	587	812	20.0%	41.4%	63.7%	85.5%	101.0%	112.2%	19.8%	65.7%
EAST AVENUES	9,204	14,054	16,276	17,604	16,257	17,443	19,431	13,325	17,856	52.7%	76.8%	91.3%	76.6%	89.5%	111.1%	44.8%	94.0%
Fifth Avenue	1,472	914	1,142	863	623	706	877	801	883	-37.9%	-22.4%	-41.4%	-57.7%	-52.0%	-40.4%	-45.6%	-40.0%
Madison Avenue	236	162	179	178	125	101	104	136	194	-31.4%	-24.2%	-24.6%	-47.0%	-57.2%	-55.9%	-42.4%	-17.8%
Park Avenue	1,739	1,405	1,622	1,571	1,233	1,349	1,561	1,315	1,548	-19.2%	-6.7%	-9.7%	-29.1%	-22.4%	-10.2%	-24.4%	-11.0%
Lexington Avenue	651	906	1,045	1,550	1,192	1,338	1,426	852	1,664	39.2%	60.5%	138.1%	83.1%	105.5%	119.0%	30.9%	155.6%
Third Avenue	898	580	791	852	705	872	999	590	887	-35.4%	-11.9%	-5.1%	-21.5%	-2.9%	11.2%	-34.3%	-1.2%
Second Avenue	1,086	5,247	5,852	6,360	6,964	7,292	7,863	5,107	6,486	383.1%	438.9%	485.6%	541.3%	571.5%	624.0%	370.3%	497.2%
First Avenue	380	1,232	1,360	1,263	1,715	1,570	1,850	1,118	1,295	224.2%	257.9%	232.4%	351.3%	313.2%	386.8%	194.2%	240.8%
York Avenue	2,108	1,649	1,899	1,616	1,321	1,522	1,821	1,562	1,722	-21.8%	-9.9%	-23.3%	-37.3%	-27.8%	-13.6%	-25.9%	-18.3%
Ed Koch Queensboro Ramp	634	1,959	2,386	3,351	2,379	2,693	2,930	1,844	3,177	209.0%	276.3%	428.5%	275.2%	324.8%	362.1%	190.9%	401.1%
Queens	39,427	43,248	45,890	40,624	34,508	37,005	38,519	42,528	43,076	9.7%	16.4%	3.0%	-12.5%	-6.1%	-2.3%	7.9%	9.3%
Inbound	20,102	21,565	22,906	17,668	14,714	15,785	16,512	21,119	19,587	7.3%	13.9%	-12.1%	-26.8%	-21.5%	-17.9%	5.1%	-2.6%
Outbound	19,327	21,685	22,985	22,960	19,797	21,223	22,011	21,412	23,492	12.2%	18.9%	18.8%	2.4%	9.8%	13.9%	10.8%	21.6%
Ed Koch Queensboro Bridge	5,320	10,140	11,429	19,506	25,473	27,371	28,479	9,678	17,178	90.6%	114.8%	266.7%	378.8%	414.5%	435.3%	81.9%	222.9%
Queens-Midtown Tunnel	34,107	33,108	34,461	21,118	9,035	9,634	10,040	32,850	25,898	-2.9%	1.0%	-38.1%	-73.5%	-71.8%	-70.6%	-3.7%	-24.1%
Brooklyn	23,211	19,207	22,881	24,457	22,499	25,535	29,748	18,339	25,705	-17.3%	-1.4%	5.4%	-3.1%	10.0%	28.2%	-21.0%	10.7%
Inbound	10,709	8,597	10,322	13,250	12,184	13,659	15,808	8,189	13,359	-19.7%	-3.6%	23.7%	13.8%	27.5%	47.6%	-23.5%	24.7%
Outbound	12,509	10,618	12,566	11,212	10,320	11,884	13,946	10,158	12,352	-15.1%	0.5%	-10.4%	-17.5%	-5.0%	11.5%	-18.8%	-1.3%
Williamsburg Bridge	5,544	5,468	7,013	9,046	10,687	12,260	13,904	5,435	9,273	-1.4%	26.5%	63.2%	92.8%	121.1%	150.8%	-2.0%	67.3%
Manhattan Bridge	2,245	1,681	2,454	2,286	1,725	2,348	3,080	1,519	2,760	-25.1%	9.3%	1.8%	-23.2%	4.6%	37.2%	-32.3%	22.9%
Brooklyn Bridge	2,576	1,455	1,870	1,902	2,503	2,832	3,630	1,278	2,118	-43.5%	-27.4%	-26.2%	-2.8%	9.9%	40.9%	-50.4%	-17.8%
Hugh Carey Tunnel	12,846	10,603	11,544	11,223	7,584	8,095	9,134	10,107	11,554	-17.5%	-10.1%	-12.6%	-41.0%	-37.0%	-28.9%	-21.3%	-10.1%
New Jersey	10,884	14,417	14,442	13,808	13,664	14,187	14,035	14,462	14,142	32.5%	32.7%	26.9%	25.5%	30.3%	29.0%	32.9%	29.9%
Inbound	5,251	7,149	7,146	6,497	6,014	6,530	6,336	7,187	6,788	36.1%	36.1%	23.7%	14.5%	24.4%	20.7%	36.9%	29.3%
Outbound	5,637	7,272	7,299	7,314	7,654	7,661	7,701	7,278	7,356	29.0%	29.5%	29.7%	35.8%	35.9%	36.6%	29.1%	30.5%
Holland Tunnel	3,718	6,301	6,525	6,292	6,659	6,984	6,788	6,681	6,638	69.5%	75.5%	69.2%	79.1%	87.8%	82.6%	79.7%	78.5%
Lincoln Tunnel	7,166	8,116	7,917	7,516	7,005	7,203	7,247	7,781	7,504	13.3%	10.5%	4.9%	-2.2%	0.5%	1.1%	8.6%	4.7%

Note: Taxis and FHV's would potentially be exempt from the CBD toll, receive a toll discount, or be subject to some other toll reduction such as a cap.

Final EA Appendix 4A2, Table 4A.2-7. Truck Toll Volumes Entering/Leaving the Manhattan CBD by Screen Line/Crossing (2023) – with Adopted Toll Structure Added

Daily Volumes										Percent Change							
Scenario										Scenario							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
(by Screen Line/ Crossing)																	
Total	121,537	108,532	107,799	105,607	105,409	102,104	98,811	113,863	107,889	-10.7%	-11.3%	-13.1%	-13.3%	-16.0%	-18.7%	-6.3%	-11.2%
60th Street	46,128	37,375	37,158	35,747	35,140	33,948	34,905	39,058	36,662	-19.0%	-19.4%	-22.5%	-23.8%	-26.4%	-24.3%	-15.3%	-20.4%
Inbound	23,792	18,572	18,388	17,224	16,602	15,978	16,584	19,559	17,847	-21.9%	-22.7%	-27.6%	-30.2%	-32.8%	-30.3%	-17.8%	-25.0%
Outbound	22,366	18,829	18,800	18,550	18,564	18,000	18,350	19,528	18,892	-15.8%	-15.9%	-17.1%	-17.0%	-19.5%	-18.0%	-12.7%	-15.5%
FDR DRIVE+WEST SIDE HWY	4,118	4,202	4,281	4,338	4,749	4,684	4,816	4,388	4,506	2.0%	4.0%	5.3%	15.3%	13.7%	16.9%	6.6%	9.4%
West Side Highway / Route 9A	1,366	1,962	1,995	1,990	2,186	2,058	2,223	2,067	2,105	43.6%	46.0%	45.7%	60.0%	50.7%	62.7%	51.3%	54.1%
FDR Drive	2,752	2,240	2,286	2,348	2,563	2,626	2,593	2,321	2,401	-18.6%	-16.9%	-14.7%	-6.9%	-4.6%	-5.8%	-15.7%	-12.8%
WEST AVENUES	16,382	13,660	13,505	12,789	12,718	12,321	12,642	14,132	13,290	-16.6%	-17.6%	-21.9%	-22.4%	-24.8%	-22.8%	-13.7%	-18.8%
West End Ave	3,555	1,974	1,883	1,261	1,118	839	1,066	2,161	1,663	-44.5%	-47.0%	-64.5%	-68.6%	-76.4%	-70.0%	-39.2%	-53.2%
Broadway	5,864	6,029	6,073	6,143	6,320	6,379	6,291	5,967	6,128	2.8%	3.6%	4.8%	7.8%	8.8%	7.3%	1.8%	4.6%
Amsterdam	3,616	2,361	2,233	1,934	1,758	1,627	1,716	2,691	2,133	-34.7%	-38.2%	-46.5%	-51.4%	-55.0%	-52.5%	-25.6%	-41.0%
Columbus Ave	2,269	2,162	2,177	2,260	2,326	2,292	2,376	2,185	2,193	-4.7%	-4.1%	-0.4%	2.5%	1.0%	4.7%	-3.7%	-3.1%
Eighth Avenue	1,078	1,134	1,139	1,191	1,196	1,184	1,193	1,128	1,173	5.2%	5.7%	10.5%	10.9%	9.8%	10.7%	4.6%	9.3%
EAST AVENUES	25,628	19,513	19,372	18,620	17,673	16,943	17,447	20,538	18,866	-23.9%	-24.4%	-27.3%	-31.0%	-33.9%	-31.9%	-19.9%	-26.3%
Fifth Avenue	1,933	1,596	1,579	1,498	1,476	1,483	1,461	1,592	1,554	-17.4%	-18.3%	-22.5%	-23.6%	-23.3%	-24.4%	-17.6%	-19.4%
Madison Avenue	773	755	752	758	753	730	748	706	744	-2.3%	-2.7%	-1.9%	-2.6%	-5.6%	-3.2%	-8.7%	-3.3%
Park Avenue	4,132	3,438	3,465	3,368	3,298	3,288	3,246	3,553	3,375	-16.8%	-16.1%	-18.5%	-20.2%	-20.4%	-21.4%	-14.0%	-18.2%
Lexington Avenue	3,086	2,568	2,536	2,661	2,672	2,662	2,720	2,505	2,614	-16.8%	-17.8%	-13.8%	-13.4%	-13.7%	-11.9%	-18.8%	-15.1%
Third Avenue	3,705	3,708	3,744	3,639	3,586	3,381	3,575	3,763	3,725	0.1%	1.1%	-1.8%	-3.2%	-8.7%	-3.5%	1.6%	0.7%
Second Avenue	5,643	3,980	3,869	3,381	2,689	2,332	2,544	4,763	3,560	-29.5%	-31.4%	-40.1%	-52.3%	-58.7%	-54.9%	-15.6%	-36.9%
First Avenue	2,583	2,353	2,351	2,365	2,296	2,162	2,267	2,599	2,349	-8.9%	-9.0%	-8.4%	-11.1%	-16.3%	-12.2%	0.6%	-8.9%
York Avenue	1,189	779	737	630	584	575	576	721	619	-34.5%	-38.0%	-47.0%	-50.9%	-51.6%	-51.6%	-39.4%	-47.8%
Ed Koch Queensboro Ramp	2,584	336	339	320	319	330	310	336	326	-87.0%	-86.9%	-87.6%	-87.7%	-87.2%	-88.0%	-87.0%	-87.4%
Queens	23,198	21,929	21,746	21,178	20,879	20,143	20,635	23,063	21,316	-5.5%	-6.3%	-8.7%	-10.0%	-13.2%	-11.0%	-0.6%	-8.1%
Inbound	12,762	11,950	11,901	11,851	11,382	11,070	11,060	12,299	11,763	-6.4%	-6.7%	-7.1%	-10.8%	-13.3%	-13.3%	-3.6%	-7.8%
Outbound	10,440	9,983	9,848	9,330	9,501	9,077	9,579	10,767	9,560	-4.4%	-5.7%	-10.6%	-9.0%	-13.1%	-8.2%	3.1%	-8.4%
Ed Koch Queensboro Bridge	17,286	16,372	16,281	15,812	14,156	13,259	14,675	17,578	15,659	-5.3%	-5.8%	-8.5%	-18.1%	-23.3%	-15.1%	1.7%	-9.4%
Queens-Midtown Tunnel	5,912	5,557	5,465	5,366	6,723	6,884	5,960	5,485	5,657	-6.0%	-7.6%	-9.2%	13.7%	16.4%	0.8%	-7.2%	-4.3%
Brooklyn	33,616	32,029	31,900	31,460	31,774	30,914	25,829	33,088	32,275	-4.7%	-5.1%	-6.4%	-5.5%	-8.0%	-23.2%	-1.6%	-4.0%
Inbound	15,032	14,504	14,467	13,958	14,295	13,857	11,482	15,020	14,501	-3.5%	-3.8%	-7.1%	-4.9%	-7.8%	-23.6%	-0.1%	-3.5%
Outbound	18,590	17,534	17,439	17,510	17,486	17,064	14,353	18,075	17,791	-5.7%	-6.2%	-5.8%	-5.9%	-8.2%	-22.8%	-2.8%	-4.3%
Williamsburg Bridge	8,582	8,741	8,694	8,806	8,596	8,598	8,375	8,972	8,788	1.9%	1.3%	2.6%	0.2%	0.2%	-2.4%	4.5%	2.4%
Manhattan Bridge	12,781	10,887	10,816	11,164	9,900	9,763	9,390	11,747	11,212	-14.8%	-15.4%	-12.7%	-22.5%	-23.6%	-26.5%	-8.1%	-12.3%
Brooklyn Bridge	4,486	4,255	4,256	4,332	4,934	4,973	3,717	4,298	4,340	-5.1%	-5.1%	-3.4%	10.0%	10.9%	-17.1%	-4.2%	-3.3%
Hugh Carey Tunnel	7,767	8,146	8,134	7,158	8,344	7,580	4,347	8,071	7,935	4.9%	4.7%	-7.8%	7.4%	-2.4%	-44.0%	3.9%	2.2%
New Jersey	18,595	17,199	16,995	17,222	17,616	17,099	17,442	18,654	17,636	-7.5%	-8.6%	-7.4%	-5.3%	-8.0%	-6.2%	0.3%	-5.1%
Inbound	10,551	9,890	9,759	10,342	10,896	10,605	10,489	10,651	10,386	-6.3%	-7.5%	-2.0%	3.3%	0.5%	-0.6%	0.9%	-1.6%
Outbound	8,047	7,311	7,238	6,883	6,722	6,495	6,957	8,008	7,256	-9.1%	-10.1%	-14.5%	-16.5%	-19.3%	-13.5%	-0.5%	-9.8%
Holland Tunnel	9,305	9,131	9,065	9,078	9,152	8,935	9,209	9,941	9,476	-1.9%	-2.6%	-2.4%	-1.6%	-4.0%	-1.0%	6.8%	1.9%
Lincoln Tunnel	9,290	8,068	7,930	8,144	8,464	8,164	8,233	8,713	8,160	-13.2%	-14.6%	-12.3%	-8.9%	-12.1%	-11.4%	-6.2%	12.1%



Final EA Appendix 4A2, Table 4A.2-8. Work Journeys to the Manhattan CBD by Origin County (2023) – with Adopted Toll Structure Added

Daily Journeys										Percent Change							
Scenario										Scenario							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
Total Work Journeys to CBD	1,561,067	1,561,030	1,561,015	1,561,093	1,561,040	1,561,081	1,561,059	1,561,017	1,561,063	0%	0%	0%	0%	0%	0%	0%	0.0%
CBD	164,814	165,096	164,894	165,304	165,480	165,649	165,289	165,093	164,811	0%	0%	0%	0%	1%	0%	0%	0.0%
CBD	164,814	165,096	164,894	165,304	165,480	165,649	165,289	165,093	164,811	0%	0%	0%	0%	1%	0%	0%	0.0%
New York City	843,655	839,085	838,585	837,467	835,931	835,102	835,957	837,507	837,160	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-0.8%
Upper Manhattan	175,876	174,686	175,138	174,570	174,556	174,752	174,170	174,207	174,665	-1%	0%	-1%	-1%	-1%	-1%	-1%	-0.7%
Bronx	97,518	96,911	96,821	96,598	96,359	96,172	96,741	96,409	96,269	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1.3%
Brooklyn	282,439	280,663	280,595	279,906	279,684	279,165	280,197	280,463	280,204	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-0.8%
Queens	260,444	258,756	257,996	257,996	257,335	256,897	256,624	258,367	257,751	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1.0%
Staten Island	27,378	28,069	28,035	28,397	27,997	28,116	28,225	28,061	28,271	3%	2%	4%	2%	3%	3%	2%	3.3%
Long Island	128,802	131,412	131,993	131,253	131,272	131,777	130,636	132,202	131,192	2%	2%	2%	2%	2%	1%	3%	1.9%
Nassau	87,416	89,363	89,962	89,120	88,381	88,830	87,993	89,996	89,078	2%	3%	2%	1%	2%	1%	3%	1.9%
Suffolk	41,386	42,049	42,031	42,133	42,891	42,947	42,643	42,206	42,114	2%	2%	2%	4%	4%	3%	2%	1.8%
Upstate New York	101,745	99,988	100,411	100,742	100,272	100,014	100,247	100,347	100,365	-2%	-1%	-1%	-1%	-2%	-1%	-1%	-1.4%
Dutchess	5,989	5,960	5,909	5,982	5,987	6,031	5,961	6,065	5,945	0%	-1%	0%	0%	1%	0%	1%	-0.7%
Orange	14,672	14,595	14,741	14,940	15,391	15,585	15,418	14,754	14,907	-1%	0%	2%	5%	6%	5%	1%	1.6%
Putnam	1,648	1,665	1,628	1,629	1,618	1,685	1,645	1,663	1,649	1%	-1%	-1%	-2%	2%	0%	1%	0.1%
Rockland	8,569	8,310	8,504	8,396	8,526	8,509	8,247	8,518	8,213	-3%	-1%	-2%	-1%	-1%	-4%	-1%	-4.2%
Westchester	70,867	69,458	69,629	69,795	68,750	68,204	68,976	69,347	69,651	-2%	-2%	-2%	-3%	-4%	-3%	-2%	-1.7%
New Jersey	264,412	268,175	267,738	269,024	271,000	272,034	271,413	269,303	270,061	1%	1%	2%	2%	3%	3%	2%	2.1%
Bergen	35,099	35,399	35,160	35,660	35,818	36,087	35,949	35,421	35,483	1%	0%	2%	2%	3%	2%	1%	1.1%
Essex	31,127	31,297	31,485	31,602	31,715	31,901	31,840	31,816	31,597	1%	1%	2%	2%	2%	2%	2%	1.5%
Hudson	82,484	83,408	83,175	83,495	83,911	84,762	84,609	83,716	84,113	1%	1%	1%	2%	3%	3%	1%	2.0%
Hunterdon	3,050	3,074	3,124	3,102	3,126	3,161	3,136	3,094	3,107	1%	2%	2%	2%	4%	3%	1%	1.9%
Mercer	7,175	7,206	7,238	7,284	7,295	7,287	7,254	7,254	7,232	0%	1%	2%	2%	2%	1%	1%	0.8%
Middlesex	28,278	28,713	28,846	28,745	29,169	28,942	29,046	28,864	28,734	2%	2%	2%	3%	2%	3%	2%	1.6%
Monmouth	19,481	19,879	19,522	19,674	19,935	19,727	19,655	19,424	19,805	2%	0%	1%	2%	1%	1%	0%	1.7%
Morris	10,136	10,439	10,403	10,424	10,632	10,643	10,523	10,506	10,566	3%	3%	3%	5%	5%	4%	4%	4.2%
Ocean	11,322	11,429	11,451	11,495	11,564	11,506	11,538	11,497	11,459	1%	1%	2%	2%	2%	2%	2%	1.2%
Passaic	8,228	8,798	8,672	8,828	9,032	9,042	8,876	8,875	8,999	7%	5%	7%	10%	10%	8%	8%	9.4%
Somerset	5,977	6,159	6,124	6,223	6,198	6,298	6,259	6,146	6,202	3%	2%	4%	4%	5%	5%	3%	3.8%
Sussex	3,348	3,369	3,425	3,353	3,367	3,319	3,339	3,400	3,396	1%	2%	0%	1%	-1%	0%	2%	1.4%
Union	17,759	18,059	18,162	18,188	18,273	18,404	18,429	18,324	18,414	2%	2%	2%	3%	4%	4%	3%	3.7%
Warren	948	946	951	951	965	955	960	966	954	0%	0%	0%	2%	1%	1%	2%	0.6%
Connecticut	57,639	57,274	57,394	57,303	57,085	56,505	57,517	56,565	57,474	-1%	0%	-1%	-1%	-2%	0%	-2%	-0.3%
Fairfield	37,853	37,404	37,634	37,596	37,104	36,530	37,532	36,665	37,672	-1%	-1%	-1%	-2%	-3%	-1%	-3%	-0.5%
New Haven	19,786	19,870	19,760	19,707	19,981	19,975	19,985	19,900	19,802	0%	0%	0%	1%	1%	1%	1%	2.3%

Final EA Appendix 4A2, Table 4A.2-9. Toll Vehicle Volumes Entering/Leaving the Manhattan CBD by Screen Line/Crossing (2045) – with Adopted Toll Structure Added

Daily Volumes										Percent Change							
Scenario										Scenario							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
(by Screen Line/ Crossing)																	
Total	1,480,286	1,292,709	1,298,008	1,268,589	1,230,549	1,216,169	1,239,285	1,269,601	1,268,937	-13%	-12%	-14%	-17%	-18%	-16%	-14%	-14.3%
Inbound	750,695	647,822	650,479	635,851	617,517	610,279	621,900	636,184	635,833	-14%	-13%	-15%	-18%	-19%	-17%	-15.3%	-15.3%
Outbound	729,559	644,852	647,500	632,704	613,005	605,868	617,357	633,393	633,104	-12%	-11%	-13%	-16%	-17%	-15%	-13%	-13.2%
60th Street	549,072	473,220	479,431	460,828	438,623	436,372	446,477	469,509	467,387	-13.8%	-12.7%	-16.1%	-20.1%	-20.5%	-18.7%	-14.5%	-14.9%
Inbound	288,876	236,408	239,250	226,243	212,735	211,409	216,884	233,737	230,946	-18.2%	-17.2%	-21.7%	-26.4%	-26.8%	-24.9%	-19.1%	-20.1%
Outbound	260,182	236,796	240,172	234,572	225,878	224,955	229,583	235,764	236,441	-9.0%	-7.7%	-9.8%	-13.2%	-13.5%	-11.8%	-9.4%	-9.1%
FDR DRIVE+WEST SIDE HWY	301,343	288,193	291,892	285,093	276,703	275,597	280,729	287,393	288,400	-4.4%	-3.1%	-5.4%	-8.2%	-8.5%	-6.8%	-4.6%	-4.3%
West Side Highway / Route 9A	124,950	117,457	118,920	115,127	111,092	110,371	112,823	116,458	116,629	-6.0%	-4.8%	-7.9%	-11.1%	-11.7%	-9.7%	-6.8%	-6.7%
am	26,409	25,842	26,232	25,580	25,080	25,175	25,424	25,745	25,893	-2.1%	-0.7%	-3.1%	-5.0%	-4.7%	-3.7%	-2.5%	-2.0%
md	35,767	33,953	34,492	33,809	32,466	32,622	33,110	33,621	34,182	-5.1%	-3.6%	-5.5%	-9.2%	-8.8%	-7.4%	-6.0%	-4.4%
pm	26,791	25,949	26,143	25,589	25,067	25,072	25,363	25,797	25,765	-3.1%	-2.4%	-4.5%	-6.4%	-6.4%	-5.3%	-3.7%	-3.8%
nt	35,983	31,713	32,053	30,149	28,479	27,502	28,926	31,295	30,789	-11.9%	-10.9%	-16.2%	-20.9%	-23.6%	-19.6%	-13.0%	-14.4%
FDR Drive	176,393	170,736	172,972	169,966	165,611	165,226	167,906	170,935	171,771	-3.2%	-1.9%	-3.6%	-6.1%	-6.3%	-4.8%	-3.1%	-2.6%
am	35,876	35,591	35,904	35,980	35,525	35,727	35,945	35,852	36,145	-0.8%	0.1%	0.3%	-1.0%	-0.4%	0.2%	-0.1%	0.7%
md	49,880	48,193	49,129	48,748	47,821	47,663	48,944	48,246	49,020	-3.4%	-1.5%	-2.3%	-4.1%	-4.4%	-1.9%	-3.3%	-1.7%
pm	41,521	40,448	40,849	40,091	39,071	39,406	39,737	40,247	40,335	-2.6%	-1.6%	-3.4%	-5.9%	-5.1%	-4.3%	-3.1%	-2.9%
nt	49,116	46,504	47,090	45,147	43,194	42,430	43,280	46,590	46,271	-5.3%	-4.1%	-8.1%	-12.1%	-13.6%	-11.9%	-5.1%	-5.8%
WEST AVENUES	72,502	56,201	57,660	54,867	50,856	50,545	52,999	56,491	55,772	-22.5%	-20.5%	-24.3%	-29.9%	-30.3%	-26.9%	-22.1%	-23.1%
West End Ave	10,141	3,914	4,226	3,391	2,516	2,424	3,024	4,322	4,037	-61.4%	-58.3%	-66.6%	-75.2%	-76.1%	-70.2%	-57.4%	-60.2%
am	2,742	1,163	1,248	983	767	753	841	1,336	1,121	-57.6%	-54.5%	-64.2%	-72.0%	-72.5%	-69.3%	-51.3%	-59.1%
md	3,007	1,210	1,294	970	777	751	962	1,380	1,206	-59.8%	-57.0%	-67.7%	-74.2%	-75.0%	-68.0%	-54.1%	-59.9%
pm	2,280	1,008	1,130	990	610	607	814	1,020	1,151	-55.8%	-50.4%	-56.6%	-73.2%	-73.4%	-64.3%	-55.3%	-49.5%
nt	2,112	533	554	448	362	313	407	586	559	-74.8%	-73.8%	-78.8%	-82.9%	-85.2%	-80.7%	-72.3%	-73.5%
Broadway	34,340	29,214	29,590	28,539	26,644	26,387	27,354	28,641	28,646	-14.9%	-13.8%	-16.9%	-22.4%	-23.2%	-20.3%	-16.6%	-16.6%
am	8,486	7,413	7,356	7,314	6,655	6,584	6,769	7,238	7,197	-12.6%	-13.3%	-13.8%	-21.6%	-22.4%	-20.2%	-14.7%	-15.2%
md	9,086	7,245	7,487	7,070	6,345	6,246	6,738	7,205	7,243	-20.3%	-17.6%	-22.2%	-30.2%	-31.3%	-25.8%	-20.7%	-20.3%
pm	10,649	9,199	9,342	9,026	8,618	8,631	8,617	9,088	9,117	-13.6%	-12.3%	-15.2%	-19.1%	-19.0%	-19.1%	-14.7%	-14.4%
nt	6,119	5,357	5,405	5,129	5,026	4,926	5,230	5,110	5,089	-12.5%	-11.7%	-16.2%	-17.9%	-19.5%	-14.5%	-16.5%	-16.8%
Amsterdam	13,296	8,508	8,776	8,388	7,821	7,614	8,283	8,730	8,352	-36.0%	-34.0%	-36.9%	-41.2%	-42.7%	-37.7%	-34.3%	-37.2%
am	1,825	1,107	1,082	970	898	870	909	1,210	1,024	-39.3%	-40.7%	-46.8%	-50.8%	-52.3%	-50.2%	-33.7%	-43.9%
md	3,528	2,091	2,084	1,957	1,745	1,740	1,871	2,213	2,032	-40.7%	-40.9%	-44.5%	-50.5%	-50.7%	-47.0%	-37.3%	-42.4%
pm	6,075	4,241	4,587	4,265	3,860	3,814	4,185	4,193	4,245	-30.2%	-24.5%	-29.8%	-36.5%	-37.2%	-31.1%	-31.0%	-30.1%
nt	1,868	1,069	1,023	1,196	1,318	1,190	1,318	1,114	1,051	-42.8%	-45.2%	-36.0%	-29.4%	-36.3%	-29.4%	-40.4%	-43.7%
Columbus Ave	10,785	10,941	11,335	10,628	10,040	10,246	10,362	11,120	10,908	1.4%	5.1%	-1.5%	-6.9%	-5.0%	-3.9%	3.1%	1.1%
am	3,422	3,297	3,412	3,262	3,025	3,091	3,183	3,316	3,370	-3.7%	-0.3%	-4.7%	-11.6%	-9.7%	-7.0%	-3.1%	-1.5%
md	3,964	3,742	3,950	3,617	3,452	3,601	3,518	3,806	3,738	-5.6%	-0.4%	-8.8%	-12.9%	-9.2%	-11.3%	-4.0%	-5.7%
pm	1,968	1,979	2,017	1,840	1,766	1,786	1,859	1,953	1,827	0.6%	2.5%	-6.5%	-10.3%	-9.2%	-5.5%	-0.8%	-7.2%
nt	1,431	1,923	1,956	1,909	1,797	1,768	1,802	2,045	1,973	34.4%	36.7%	33.4%	25.6%	23.5%	25.9%	42.9%	37.9%
Eighth Avenue	3,940	3,624	3,733	3,921	3,835	3,874	3,976	3,678	3,829	-8.0%	-5.3%	-0.5%	-2.7%	-1.7%	0.9%	-6.6%	-2.8%
am	693	697	713	748	878	879	863	652	721	0.6%	2.9%	7.9%	26.7%	26.8%	24.5%	-5.9%	4.0%
md	960	858	853	884	853	881	902	861	897	-10.6%	-11.1%	-7.9%	-11.1%	-8.2%	-6.0%	-10.3%	-6.6%
pm	1,468	1,248	1,314	1,365	1,235	1,236	1,277	1,292	1,363	-15.0%	-10.5%	-7.0%	-15.9%	-15.8%	-13.0%	-12.0%	-7.2%
nt	819	821	853	924	869	878	934	873	848	0.2%	4.2%	12.8%	6.1%	7.2%	14.0%	6.6%	3.5%
EAST AVENUES	175,227	128,826	129,879	120,868	111,064	110,230	112,749	125,625	123,215	-26.5%	-25.9%	-31.0%	-36.6%	-37.1%	-35.7%	-28.3%	-29.7%
Fifth Avenue	13,688	10,357	10,635	9,866	9,084	8,954	9,305	10,313	10,071	-24.3%	-22.3%	-27.9%	-33.6%	-34.6%	-32.0%	-24.7%	-26.4%
am	4,262	3,688	3,718	3,606	3,340	3,250	3,382	3,603	3,510	-13.5%	-12.8%	-15.4%	-21.6%	-23.7%	-20.6%	-15.5%	-17.6%
md	5,324	3,600	3,749	3,492	3,075	3,091	3,237	3,668	3,526	-32.4%	-29.6%	-34.4%	-42.2%	-41.9%	-39.2%	-31.1%	-33.8%
pm	2,178	1,638	1,715	1,546	1,547	1,565	1,565	1,644	1,683	-24.8%	-21.3%	-29.0%	-29.0%	-28.1%	-28.1%	-24.5%	-22.7%
nt	1,924	1,431	1,453	1,222	1,122	1,048	1,121	1,398	1,352	-25.6%	-24.5%	-36.5%	-41.7%	-45.5%	-41.7%	-27.3%	-29.7%
Madison Avenue	4,135	3,557	3,673	3,532	3,361	3,329	3,451	3,574	3,558	-14.0%	-11.2%	-14.6%	-18.7%	-19.5%	-16.5%	-13.6%	-14.0%



Daily Volumes										Percent Change							
Scenario										Scenario							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
am	504	478	483	475	467	466	471	473	493	-5.2%	-4.2%	-5.8%	-7.3%	-7.5%	-6.5%	-6.2%	-2.2%
md	933	894	888	878	882	876	877	881	859	-4.2%	-4.8%	-5.9%	-5.5%	-6.1%	-6.0%	-5.6%	-7.9%
pm	2,424	1,990	2,110	1,990	1,835	1,776	1,906	2,039	2,022	-17.9%	-13.0%	-17.9%	-24.3%	-26.7%	-21.4%	-15.9%	-16.6%
nt	274	195	192	189	177	211	197	181	184	-28.8%	-29.9%	-31.0%	-35.4%	-23.0%	-28.1%	-33.9%	-32.8%
Park Avenue	19,120	15,565	15,774	15,288	14,537	13,927	14,552	15,240	15,236	-18.6%	-17.5%	-20.0%	-24.0%	-27.2%	-23.9%	-20.3%	-20.3%
am	5,447	4,692	4,776	4,636	4,339	4,212	4,363	4,589	4,592	-13.9%	-12.3%	-14.9%	-20.3%	-22.7%	-19.9%	-15.8%	-15.7%
md	5,082	3,833	3,820	3,666	3,475	3,403	3,500	3,724	3,722	-24.6%	-24.8%	-27.9%	-31.6%	-33.0%	-31.1%	-26.7%	-26.8%
pm	5,339	4,419	4,465	4,384	4,323	4,085	4,172	4,322	4,404	-17.2%	-16.4%	-17.9%	-19.0%	-23.5%	-21.9%	-19.0%	-17.5%
nt	3,252	2,621	2,713	2,602	2,400	2,227	2,517	2,605	2,518	-19.4%	-16.6%	-20.0%	-26.2%	-31.5%	-22.6%	-19.9%	-22.5%
Lexington Avenue	12,954	9,343	9,394	8,438	7,528	7,611	7,613	9,448	8,366	-27.9%	-27.5%	-34.9%	-41.9%	-41.2%	-41.2%	-27.1%	-35.4%
am	4,078	2,531	2,615	2,444	2,237	2,173	2,294	2,566	2,457	-37.9%	-35.9%	-40.1%	-45.1%	-46.7%	-43.7%	-37.1%	-39.7%
md	4,945	4,249	4,113	3,683	3,003	3,158	2,998	4,397	3,278	-14.1%	-16.8%	-25.5%	-39.3%	-36.1%	-39.4%	-11.1%	-33.7%
pm	1,830	1,167	1,258	1,147	1,159	1,186	1,203	1,160	1,178	-36.2%	-31.3%	-37.3%	-36.7%	-35.2%	-34.3%	-36.6%	-35.6%
nt	2,101	1,396	1,408	1,164	1,129	1,094	1,118	1,325	1,453	-33.6%	-33.0%	-44.6%	-46.3%	-47.9%	-46.8%	-36.9%	-30.8%
Third Avenue	14,732	11,117	11,374	10,467	8,672	8,892	8,798	10,586	10,978	-24.5%	-22.8%	-29.0%	-41.1%	-39.6%	-40.3%	-28.1%	-25.5%
am	2,657	2,016	2,037	1,929	1,764	1,815	1,770	1,833	1,948	-24.1%	-23.3%	-27.4%	-33.6%	-31.7%	-33.4%	-31.0%	-26.7%
md	4,589	3,792	3,998	3,547	2,671	2,707	2,729	3,790	3,885	-17.4%	-12.9%	-22.7%	-41.8%	-41.0%	-40.5%	-17.4%	-15.3%
pm	5,105	3,847	3,867	3,545	2,998	3,072	3,015	3,547	3,602	-24.6%	-24.3%	-30.6%	-41.3%	-39.8%	-40.9%	-30.5%	-29.4%
nt	2,381	1,462	1,472	1,446	1,239	1,298	1,284	1,416	1,543	-38.6%	-38.2%	-39.3%	-48.0%	-45.5%	-46.1%	-40.5%	-35.2%
Second Avenue	40,494	21,084	20,913	18,165	15,893	15,843	16,747	18,875	19,326	-47.9%	-48.4%	-55.1%	-60.8%	-60.9%	-58.6%	-53.4%	-52.3%
am	9,631	6,535	6,568	6,140	5,685	5,698	5,921	5,890	6,040	-32.1%	-31.8%	-36.2%	-41.0%	-40.8%	-38.5%	-38.8%	-37.3%
md	11,156	6,460	6,568	5,419	4,417	4,545	4,685	6,186	6,608	-42.1%	-41.1%	-51.4%	-60.4%	-59.3%	-58.0%	-44.6%	-40.8%
pm	9,085	4,499	4,453	4,012	3,615	3,620	3,747	4,194	3,917	-50.5%	-51.0%	-55.8%	-60.2%	-60.2%	-58.8%	-53.8%	-56.9%
nt	10,622	3,590	3,324	2,594	2,176	1,980	2,394	2,605	2,761	-66.2%	-68.7%	-75.6%	-79.5%	-81.4%	-77.5%	-75.5%	-74.0%
First Avenue	6,164	5,765	6,078	5,871	5,663	5,308	5,736	5,937	5,760	-6.5%	-1.4%	-4.8%	-8.1%	-13.9%	-6.9%	-3.7%	-6.6%
am	2,202	1,993	2,014	1,952	1,867	1,844	1,911	1,987	1,952	-9.5%	-8.5%	-11.4%	-15.2%	-16.3%	-13.2%	-9.8%	-11.4%
md	1,430	1,601	1,640	1,585	1,564	1,496	1,561	1,640	1,589	12.0%	14.7%	10.8%	9.4%	4.6%	9.2%	14.7%	11.1%
pm	1,755	1,488	1,774	1,733	1,641	1,417	1,635	1,622	1,564	-15.2%	1.1%	-1.3%	-6.5%	-19.3%	-6.8%	-7.6%	-10.9%
nt	777	683	650	601	591	551	629	688	655	-12.1%	-16.3%	-22.7%	-23.9%	-29.1%	-19.0%	-11.5%	-15.7%
York Avenue	23,130	14,003	13,978	13,323	11,794	12,032	12,062	13,801	13,062	-39.5%	-39.6%	-42.4%	-49.0%	-48.0%	-47.9%	-40.3%	-43.5%
am	4,535	2,600	2,627	2,392	2,200	2,157	2,098	2,448	2,372	-42.7%	-42.1%	-47.3%	-51.5%	-52.4%	-53.7%	-46.0%	-47.7%
md	7,308	4,514	4,721	4,475	3,785	3,805	4,073	4,507	4,331	-38.2%	-35.4%	-38.8%	-48.2%	-47.9%	-44.3%	-38.3%	-40.7%
pm	4,177	2,440	2,269	2,018	1,855	1,999	1,915	2,474	2,109	-41.6%	-45.7%	-51.7%	-55.6%	-52.1%	-54.2%	-40.8%	-49.5%
nt	7,110	4,449	4,361	4,438	3,954	4,071	3,976	4,372	4,250	-37.4%	-38.7%	-37.6%	-44.4%	-42.7%	-44.1%	-38.5%	-40.2%
Ed Koch Queensboro Ramp	40,810	38,035	38,060	35,918	34,532	34,334	34,485	37,851	36,858	-6.8%	-6.7%	-12.0%	-15.4%	-15.9%	-15.5%	-7.3%	-9.7%
am	8,172	6,250	6,294	6,108	6,041	5,972	6,002	6,237	6,250	-23.5%	-23.0%	-25.3%	-26.1%	-26.9%	-26.6%	-23.7%	-23.5%
md	15,526	13,262	13,453	12,756	11,677	11,523	11,669	13,353	12,870	-14.6%	-13.4%	-17.8%	-24.8%	-25.8%	-24.8%	-14.0%	-17.1%
pm	8,411	6,202	6,105	5,628	5,493	5,540	5,655	6,103	5,904	-26.3%	-27.4%	-33.1%	-34.7%	-34.1%	-32.8%	-27.4%	-29.8%
nt	8,701	12,321	12,208	11,426	11,321	11,299	11,159	12,158	11,834	41.6%	40.3%	31.3%	30.1%	29.9%	28.2%	39.7%	36.0%
Queens	291,091	253,735	252,884	253,353	254,874	253,653	255,827	248,183	249,488	-12.8%	-13.1%	-13.0%	-12.4%	-12.9%	-12.1%	-14.7%	-14.3%
Inbound	154,348	138,824	138,730	142,997	147,894	147,558	148,430	136,884	138,699	-10.1%	-10.1%	-7.4%	-4.2%	-4.4%	-3.8%	-11.3%	-10.1%
Outbound	136,738	114,904	114,147	110,352	106,975	106,091	107,391	111,295	110,789	-16.0%	-16.5%	-19.3%	-21.8%	-22.4%	-21.5%	-18.6%	-19.0%
Ed Koch Queensboro Bridge	197,846	166,725	165,822	148,303	141,166	139,726	140,873	161,957	155,450	-15.7%	-16.2%	-25.0%	-28.6%	-29.4%	-28.8%	-18.1%	-21.4%
am	42,221	36,712	36,676	33,980	32,041	31,626	31,820	35,481	34,542	-13.0%	-13.1%	-19.5%	-24.1%	-25.1%	-24.6%	-16.0%	-18.2%
md	62,631	52,936	53,021	50,245	47,626	47,231	47,633	51,650	50,593	-15.5%	-15.3%	-19.8%	-24.0%	-24.6%	-23.9%	-17.5%	-19.2%
pm	42,940	34,959	34,766	31,385	30,046	29,768	30,328	34,205	32,264	-18.6%	-19.0%	-26.9%	-30.0%	-30.7%	-29.4%	-20.3%	-24.9%
nt	50,054	42,118	41,359	32,693	31,453	31,101	31,092	40,621	38,051	-15.9%	-17.4%	-34.7%	-37.2%	-37.9%	-37.9%	-18.8%	-24.0%
Queens-Midtown Tunnel	93,245	87,010	87,062	105,050	113,708	113,927	114,954	86,226	94,038	-6.7%	-6.6%	12.7%	21.9%	22.2%	23.3%	-7.5%	0.9%
am	21,318	20,294	20,323	22,461	24,206	24,031	24,399	20,241	21,835	-4.8%	-4.7%	5.4%	13.5%	12.7%	14.5%	-5.1%	2.4%
md	32,800	30,994	31,149	33,041	34,751	34,679	35,178	30,774	32,304	-5.5%	-5.0%	0.7%	5.9%	5.7%	7.3%	-6.2%	-1.5%
pm	22,094	20,087	20,082	23,055	24,200	24,066	24,167	19,888	22,158	-9.1%	-9.1%	4.3%	9.5%	8.9%	9.4%	-10.0%	0.3%
nt	17,033	15,635	15,508	26,493	30,551	31,151	31,210	15,323	17,741	-8.2%	-9.0%	55.5%	79.4%	82.9%	83.2%	-10.0%	4.2%
Brooklyn	408,468	365,716	367,350	351,031	330,025	325,233	330,740	358,827	356,381	-10.5%	-10.1%	-14.1%	-19.2%	-20.4%	-19.0%	-12.2%	-12.7%
Inbound	192,604	172,530	173,247	159,307	143,498	141,693	143,711	169,120	165,715	-10.4%	-10.1%	-17.3%	-25.5%	-26.4%	-25.4%	-12.2%	-14.0%

Daily Volumes										Percent Change							
Scenario										Scenario							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
Outbound	215,854	193,179	194,093	191,710	186,518	183,531	187,019	189,699	190,666	-10.5%	-10.1%	-11.2%	-13.6%	-15.0%	-13.4%	-12.1%	-11.7%
Williamsburg Bridge	133,193	111,152	111,231	103,933	93,227	91,002	93,740	108,000	107,226	-16.5%	-16.5%	-22.0%	-30.0%	-31.7%	-29.6%	-18.9%	-19.5%
am	28,657	23,603	23,402	22,828	21,703	21,184	21,445	23,086	23,026	-17.6%	-18.3%	-20.3%	-24.3%	-26.1%	-25.2%	-19.4%	-19.6%
md	37,751	31,457	31,715	30,384	28,285	27,954	28,793	30,496	30,695	-16.7%	-16.0%	-19.5%	-25.1%	-26.0%	-23.7%	-19.2%	-18.7%
pm	32,592	28,375	28,569	27,062	24,497	24,023	24,458	27,939	27,412	-12.9%	-12.3%	-17.0%	-24.8%	-26.3%	-25.0%	-14.3%	-15.9%
nt	34,193	27,717	27,545	23,659	18,742	17,841	19,044	26,479	26,093	-18.9%	-19.4%	-30.8%	-45.2%	-47.8%	-44.3%	-22.6%	-23.7%
Manhattan Bridge	89,149	69,587	69,972	57,934	44,967	42,409	44,757	67,431	63,541	-21.9%	-21.5%	-35.0%	-49.6%	-52.4%	-49.8%	-24.4%	-28.7%
am	24,240	19,181	19,463	16,306	12,866	12,271	12,375	18,619	17,014	-20.9%	-19.7%	-32.7%	-46.9%	-49.4%	-48.9%	-23.2%	-29.8%
md	24,873	20,349	20,465	17,550	12,633	12,068	13,529	19,843	18,735	-18.2%	-17.7%	-29.4%	-49.2%	-51.5%	-45.6%	-20.2%	-24.7%
pm	21,682	16,501	16,605	13,896	10,852	10,144	10,448	15,847	14,473	-23.9%	-23.4%	-35.9%	-49.9%	-53.2%	-51.8%	-26.9%	-33.2%
nt	18,354	13,556	13,439	10,182	8,616	7,926	8,405	13,122	13,319	-26.1%	-26.8%	-44.5%	-53.1%	-56.8%	-54.2%	-28.5%	-27.4%
Brooklyn Bridge	123,306	120,792	121,064	115,635	109,739	109,409	109,590	120,164	118,268	-2.0%	-1.8%	-6.2%	-11.0%	-11.3%	-11.1%	-2.5%	-4.1%
am	26,213	25,670	25,654	24,973	24,514	24,414	24,590	25,498	25,155	-2.1%	-2.1%	-4.7%	-6.5%	-6.9%	-6.2%	-2.7%	-4.0%
md	34,357	33,511	33,801	32,465	31,177	31,323	31,190	33,385	32,725	-2.5%	-1.6%	-5.5%	-9.3%	-8.8%	-9.2%	-2.8%	-4.7%
pm	27,393	26,147	26,223	25,070	24,595	24,477	24,521	26,020	25,391	-4.5%	-4.3%	-8.5%	-10.2%	-10.6%	-10.5%	-5.0%	-7.3%
nt	35,343	35,464	35,386	33,127	29,453	29,195	29,289	35,261	34,997	0.3%	0.1%	-6.3%	-16.7%	-17.4%	-17.1%	-0.2%	-1.0%
Hugh Carey Tunnel	62,820	64,185	65,083	73,529	82,092	82,413	82,653	63,232	67,346	2.2%	3.6%	17.0%	30.7%	31.2%	31.6%	0.7%	7.2%
am	17,654	18,302	18,449	19,366	20,680	20,680	20,734	18,011	19,200	3.7%	4.5%	9.7%	17.1%	17.1%	17.4%	2.0%	8.8%
md	20,946	20,546	20,963	22,234	24,001	24,044	24,374	20,168	21,788	-1.9%	0.1%	6.1%	14.6%	14.8%	16.4%	-3.7%	4.0%
pm	19,208	19,230	19,455	21,136	22,606	22,545	22,662	18,859	20,198	0.1%	1.3%	10.0%	17.7%	17.4%	18.0%	-1.8%	5.2%
nt	5,012	6,107	6,216	10,793	14,805	15,144	14,883	6,194	6,160	21.8%	24.0%	115.3%	195.4%	202.2%	196.9%	23.6%	22.9%
New Jersey	231,655	200,038	198,343	203,377	207,027	200,911	206,241	193,082	195,681	-13.6%	-14.4%	-12.2%	-10.6%	-13.3%	-11.0%	-16.7%	-15.5%
Inbound	114,867	100,060	99,252	107,304	113,390	109,619	112,875	96,443	100,473	-12.9%	-13.6%	-6.6%	-1.3%	-4.6%	-1.7%	-16.0%	-12.5%
Outbound	116,785	99,973	99,088	96,070	93,634	91,291	93,364	96,635	95,208	-14.4%	-15.2%	-17.7%	-19.8%	-21.8%	-20.1%	-17.3%	-18.5%
Holland Tunnel	112,293	98,676	97,801	98,923	97,997	95,322	97,637	94,418	95,630	-12.1%	-12.9%	-11.9%	-12.7%	-15.1%	-13.1%	-15.9%	-14.8%
am	24,403	22,357	22,225	22,221	22,072	21,685	21,709	21,681	21,867	-8.4%	-8.9%	-8.9%	-9.6%	-11.1%	-11.0%	-11.2%	-10.4%
md	30,664	26,921	26,656	26,726	26,521	25,498	26,919	26,141	25,952	-12.2%	-13.1%	-12.8%	-13.5%	-16.8%	-12.2%	-14.8%	-15.4%
pm	24,319	21,872	21,729	21,790	21,856	21,047	21,114	21,160	21,210	-10.1%	-10.7%	-10.4%	-10.1%	-13.5%	-13.2%	-13.0%	-12.8%
nt	32,907	27,526	27,191	28,186	27,548	27,092	27,895	25,436	26,601	-16.4%	-17.4%	-14.3%	-16.3%	-17.7%	-15.2%	-22.7%	-19.2%
Lincoln Tunnel	119,362	101,362	100,542	104,454	109,030	105,589	108,604	98,664	100,051	-15.1%	-15.8%	-12.5%	-8.7%	-11.5%	-9.0%	-17.3%	-16.2%
am	25,320	23,616	23,552	24,101	24,429	24,076	23,987	23,045	23,595	-6.7%	-7.0%	-4.8%	-3.5%	-4.9%	-5.3%	-9.0%	-6.8%
md	35,984	30,238	29,793	30,254	30,590	29,902	31,337	29,419	29,555	-16.0%	-17.2%	-15.9%	-15.0%	-16.9%	-12.9%	-18.2%	-17.9%
pm	26,762	23,685	23,679	23,597	23,506	22,830	22,925	23,049	23,146	-11.5%	-11.5%	-11.8%	-12.2%	-14.7%	-14.3%	-13.9%	-13.5%
nt	31,296	23,823	23,518	26,502	30,505	28,781	30,355	23,151	23,755	-23.9%	-24.9%	-15.3%	-2.5%	-8.0%	-3.0%	-26.0%	-24.1%

Final EA Appendix 4A2, Table 4A.2-10. Summary – Vehicle-Miles Traveled (2045) – with Adopted Toll Structure Added

Daily VMT										Percent Change							
Scenario										Scenario							
Scenario	No Action	A	B	C	D	E	F	G	Adopted Toll Structure	A	B	C	D	E	F	G	Adopted Toll Structure
(by Screen Line/ Crossing)																	
Manhattan CBD	3,402,711	3,173,972	3,199,881	3,156,249	3,117,142	3,106,570	3,147,541	3,144,017	3,144,178	-6.7%	-6.0%	-7.2%	-8.4%	-8.7%	-7.5%	-7.6%	-7.6%
New York City	49,748,914	49,306,506	49,361,708	49,206,260	48,917,855	48,908,967	49,014,661	49,271,140	49,268,271	-0.9%	-0.8%	-1.1%	-1.7%	-1.7%	-1.5%	-1.0%	-1.0%
Manhattan CBD	3,402,711	3,173,972	3,199,881	3,156,249	3,117,142	3,106,570	3,147,541	3,144,017	3,144,178	-6.7%	-6.0%	-7.2%	-8.4%	-8.7%	-7.5%	-7.6%	-7.6%
CBD Core	1,262,019	1,211,069	1,219,101	1,222,077	1,236,236	1,230,340	1,246,015	1,197,152	1,201,489	-4.0%	-3.4%	-3.2%	-2.0%	-2.5%	-1.3%	-5.1%	-4.8%
Peripheral Highways (south of 60th Street; excluded from the toll)	2,140,692	1,962,903	1,980,780	1,934,172	1,880,906	1,876,230	1,901,526	1,946,865	1,942,689	-8.3%	-7.5%	-9.6%	-12.1%	-12.4%	-11.2%	-9.1%	-9.2%
RT9A - S of 60th	647,671	554,316	562,018	528,271	500,214	499,855	509,900	550,459	540,705	-14.4%	-13.2%	-18.4%	-22.8%	-22.8%	-21.3%	-15.0%	-16.5%
FDR - S of 60th	758,659	760,056	770,395	754,497	733,879	739,383	743,921	763,263	762,556	0.2%	1.5%	-0.5%	-3.3%	-2.5%	-1.9%	0.6%	0.5%
Bridge & Tunnels - S of 60th*	734,362	648,531	648,367	651,404	646,813	636,992	647,705	633,143	639,428	-11.7%	-11.7%	-11.3%	-11.9%	-13.3%	-11.8%	-13.8%	-12.9%
Zone 1	2,349,929	2,195,311	2,199,825	2,155,278	2,113,309	2,104,806	2,123,309	2,173,895	2,170,252	-6.6%	-6.4%	-8.3%	-10.1%	-10.4%	-9.6%	-7.5%	-7.6%
Manhattan: 60th St - 82nd St	691,669	619,654	625,994	609,607	588,882	587,032	597,706	615,867	614,392	-10.4%	-9.5%	-11.9%	-14.9%	-15.1%	-13.6%	-11.0%	-11.2%
Long Island City	700,142	652,642	650,449	648,608	652,055	649,766	653,025	642,138	644,414	-6.8%	-7.1%	-7.4%	-6.9%	-7.2%	-6.7%	-8.3%	-8.0%
Downtown Brooklyn	530,763	515,559	515,095	495,020	479,948	477,863	479,718	511,255	506,463	-2.9%	-3.0%	-6.7%	-9.6%	-10.0%	-9.6%	-3.7%	-4.6%
Williamsburg	427,355	407,456	408,287	402,043	392,424	390,145	392,860	404,635	404,983	-4.7%	-4.5%	-5.9%	-8.2%	-8.7%	-8.1%	-5.3%	-5.2%
Zone 2	7,142,863	7,086,769	7,098,540	7,060,838	7,013,071	7,012,113	7,032,663	7,083,658	7,076,967	-0.8%	-0.6%	-1.1%	-1.8%	-1.8%	-1.5%	-0.8%	-0.9%
Manhattan: 82nd St - 126th St	1,812,034	1,776,710	1,791,117	1,769,374	1,739,044	1,735,671	1,749,819	1,786,850	1,776,647	-1.9%	-1.2%	-2.4%	-4.0%	-4.2%	-3.4%	-1.4%	-2.0%
Inner Brooklyn	2,542,834	2,523,392	2,524,419	2,502,611	2,492,284	2,490,072	2,492,966	2,511,791	2,514,023	-0.8%	-0.7%	-1.6%	-2.0%	-2.1%	-2.0%	-1.2%	-1.1%
Inner Queens	2,787,995	2,786,667	2,783,004	2,788,853	2,781,743	2,786,370	2,789,878	2,785,017	2,786,297	0.0%	-0.2%	0.0%	-0.2%	-0.1%	0.1%	-0.1%	-0.1%
Zone 3	36,853,411	36,850,454	36,863,462	36,833,895	36,674,333	36,685,478	36,711,148	36,869,570	36,876,874	0.0%	0.0%	-0.1%	-0.5%	-0.5%	-0.4%	0.0%	0.1%
Upper Manhattan: Above 126th St	1,809,655	1,803,988	1,807,284	1,789,372	1,763,748	1,755,041	1,767,328	1,806,866	1,795,520	-0.3%	-0.1%	-1.1%	-2.5%	-3.0%	-2.3%	-0.2%	-0.8%
Outer Brooklyn	6,926,352	6,930,342	6,934,043	6,925,110	6,896,220	6,900,201	6,894,299	6,923,525	6,954,215	0.1%	0.1%	0.0%	-0.4%	-0.4%	-0.5%	0.0%	0.4%
Outer Queens	15,879,972	15,790,320	15,792,442	15,789,011	15,733,285	15,740,134	15,760,898	15,782,430	15,790,667	-0.6%	-0.6%	-0.6%	-0.9%	-0.9%	-0.7%	-0.6%	-0.6%
Staten Island	4,158,480	4,235,660	4,234,612	4,246,527	4,227,463	4,242,170	4,224,254	4,252,251	4,263,880	1.9%	1.8%	2.1%	1.7%	2.0%	1.6%	2.3%	2.5%
Bronx	8,078,952	8,090,144	8,095,081	8,083,875	8,053,617	8,047,932	8,064,369	8,104,498	8,072,592	0.1%	0.2%	0.1%	-0.3%	-0.4%	-0.2%	0.3%	-0.1%
New York State	134,186,361	133,549,102	133,603,123	133,407,441	133,011,541	132,941,187	133,056,675	133,576,575	133,442,057	-0.5%	-0.4%	-0.6%	-0.9%	-0.9%	-0.8%	-0.5%	-0.6%
New York City	49,748,914	49,306,506	49,361,708	49,206,260	48,917,855	48,908,967	49,014,661	49,271,140	49,268,271	-0.9%	-0.8%	-1.1%	-1.7%	-1.7%	-1.5%	-1.0%	-1.0%
Long Island	46,813,526	46,752,292	46,709,696	46,716,462	46,732,209	46,699,238	46,688,529	46,757,385	46,716,446	-0.1%	-0.2%	-0.2%	-0.2%	-0.2%	-0.3%	-0.1%	-0.2%
Upstate	37,623,921	37,490,304	37,531,719	37,484,719	37,361,477	37,332,982	37,353,485	37,548,050	37,457,340	-0.4%	-0.2%	-0.4%	-0.7%	-0.8%	-0.7%	-0.2%	-0.4%
Connecticut	35,063,470	35,045,234	35,006,855	35,042,347	35,004,182	35,002,445	34,998,648	35,059,459	35,027,864	-0.1%	-0.2%	-0.1%	-0.2%	-0.2%	-0.2%	0.0%	-0.1%
New Jersey	107,907,842	107,914,688	107,948,940	108,040,676	107,970,946	107,950,075	108,024,196	107,882,082	107,815,533	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%	0.0%	-0.1%
Total	277,157,673	276,509,024	276,558,918	276,490,464	275,986,669	275,893,707	276,079,519	276,518,116	276,285,454	-0.2%	-0.2%	-0.2%	-0.4%	-0.5%	-0.4%	-0.2%	-0.3%

Final EA Appendix 4A2, Table 4A.2-11. Transit Boardings by Mode (2045) – with Adopted Toll Structure Added

Transit Boardings (AM Period)										Change							Percent Change								
Mode	Scenario									Scenario							Scenario								
	No Action	A	B	C	D	E	F	G	Adopted Toll Structure	A	B	C	D	E	F	G	Adopted Toll Structure	A	B	C	D	E	F	G	Adopted Toll Structure
Total Volume	7,101,708	7,191,188	7,182,951	7,197,443	7,216,330	7,225,106	7,219,657	7,191,067	7,168,329	89,480	81,243	95,736	114,623	123,398	117,950	89,359	66,622	1.3%	1.1%	1.3%	1.6%	1.7%	1.7%	1.3%	0.9%
Commuter Rail	566,907	571,260	571,647	572,767	575,243	575,759	575,844	571,840	571,566	4,353	4,740	5,859	8,336	8,852	8,937	4,932	4,659	0.8%	0.8%	1.0%	1.5%	1.6%	1.6%	0.9%	0.8%
Long Island Rail Road	182,379	183,350	183,968	183,855	184,739	184,062	184,856	183,867	183,907	971	1,589	1,476	2,360	1,684	2,477	1,488	1,528	0.5%	0.9%	0.8%	1.3%	0.9%	1.4%	0.8%	0.8%
Metro-North Railroad	206,505	208,301	208,346	208,583	209,623	210,064	210,407	208,441	208,784	1,796	1,841	2,079	3,118	3,559	3,902	1,936	2,279	0.9%	0.9%	1.0%	1.5%	1.7%	1.9%	0.9%	1.1%
New Jersey Transit Rail	178,024	179,609	179,334	180,329	180,881	181,634	180,582	179,532	178,875	1,585	1,310	2,305	2,857	3,610	2,558	1,508	851	0.9%	0.7%	1.3%	1.6%	2.0%	1.4%	0.8%	0.5%
Urban Rail	3,517,783	3,569,779	3,566,213	3,572,869	3,582,744	3,589,853	3,585,948	3,571,053	3,551,694	51,996	48,429	55,086	64,961	72,069	68,164	53,270	33,911	1.5%	1.4%	1.6%	1.8%	2.0%	1.9%	1.5%	1.0%
NYCT Subway	3,344,746	3,394,538	3,390,882	3,397,112	3,406,542	3,413,503	3,409,708	3,395,715	3,377,114	49,792	46,137	52,366	61,796	68,757	64,962	50,969	32,368	1.5%	1.4%	1.6%	1.8%	2.1%	1.9%	1.5%	1.0%
PATH	160,294	161,896	162,044	162,348	162,744	162,808	162,830	162,030	161,365	1,601	1,750	2,054	2,450	2,514	2,536	1,736	1,071	1.0%	1.1%	1.3%	1.5%	1.6%	1.6%	1.1%	0.7%
SIRR	12,743	13,346	13,286	13,410	13,459	13,541	13,409	13,308	13,215	603	543	667	715	798	666	565	472	4.7%	4.3%	5.2%	5.6%	6.3%	5.2%	4.4%	3.7%
Bus	2,958,355	2,990,052	2,985,085	2,991,551	2,997,749	2,998,714	2,997,421	2,988,399	2,985,223	31,697	26,730	33,197	39,395	40,359	39,066	30,044	26,869	1.1%	0.9%	1.1%	1.3%	1.4%	1.3%	1.0%	0.9%
NYCT Bus	2,182,751	2,209,043	2,206,110	2,211,296	2,215,888	2,217,583	2,214,448	2,210,288	2,205,960	26,292	23,358	28,544	33,136	34,831	31,697	27,537	23,208	1.2%	1.1%	1.3%	1.5%	1.6%	1.5%	1.3%	1.1%
NJT Bus	562,497	567,619	566,723	567,631	567,841	568,634	569,748	566,447	567,336	5,122	4,225	5,134	5,344	6,137	7,251	3,950	4,838	0.9%	0.8%	0.9%	1.0%	1.1%	1.3%	0.7%	0.9%
Others	213,106	213,389	212,253	212,625	214,021	212,497	213,224	211,664	211,928	283	-853	-481	915	-609	118	-1,442	-1,178	0.1%	-0.4%	-0.2%	0.4%	-0.3%	0.1%	-0.7%	-0.6%
Other Transit	58,663	60,097	60,006	60,256	60,594	60,780	60,444	59,775	59,846	1,435	1,343	1,594	1,931	2,117	1,782	1,113	1,184	2.4%	2.3%	2.7%	3.3%	3.6%	3.0%	1.9%	2.0%
Ferries	58,663	60,097	60,006	60,256	60,594	60,780	60,444	59,775	59,846	1,435	1,343	1,594	1,931	2,117	1,782	1,113	1,184	2.4%	2.3%	2.7%	3.3%	3.6%	3.0%	1.9%	2.0%
Roosevelt Tram	195	202	201	202	203	204	204	206	206	6	6	7	7	9	9	10	11	3.3%	2.9%	3.4%	3.8%	4.8%	4.5%	5.4%	5.7%

Final EA Appendix 4A2, Table 4A.2-12. Cordon Volumes by Station/Route (2045) – with Adopted Toll Structure Added

Cordon Volumes (AM Peak Period)										Change								Percent Change							
	No Action	A	B	C	D	E	F	G	Adopted Toll Structure	A	B	C	D	E	F	G	Adopted Toll Structure	A	B	C	D	E	F	G	Adopted Toll Structure
Commuter Rail																									
Inbound	309,638	313,033	312,689	313,316	315,353	315,608	314,947	313,359	313,345	3,395	3,051	3,678	5,715	5,970	5,308	3,721	3,707	1.1%	1.0%	1.2%	1.8%	1.9%	1.7%	1.2%	1.2%
Long Island Rail Road (Penn Station)	72,372	73,202	73,362	73,243	73,570	73,493	73,654	73,388	73,403	830	990	872	1,199	1,121	1,283	1,016	1,031	1.1%	1.4%	1.2%	1.7%	1.5%	1.8%	1.4%	1.4%
Long Island Rail Road (Grand Central Terminal)	52,023	52,204	52,376	52,304	52,551	52,449	52,744	52,422	52,359	181	353	281	528	426	721	399	336	0.3%	0.7%	0.5%	1.0%	0.8%	1.4%	0.8%	0.6%
Metro-North Railroad (Grand Central Terminal)	100,383	101,948	101,587	101,784	102,959	103,271	102,611	101,627	102,042	1,565	1,204	1,401	2,576	2,888	2,228	1,245	1,659	1.6%	1.2%	1.4%	2.6%	2.9%	2.2%	1.2%	1.7%
Metro-North Railroad (Penn Station)	22,907	23,102	22,922	23,288	23,302	23,299	23,278	23,296	23,318	195	14	381	394	391	370	388	410	0.9%	0.1%	1.7%	1.7%	1.7%	1.6%	1.7%	1.8%
New Jersey Transit (New York - Penn Station)	61,953	62,577	62,442	62,696	62,972	63,097	62,660	62,626	62,224	624	489	743	1,018	1,144	707	673	271	1.0%	0.8%	1.2%	1.6%	1.8%	1.1%	1.1%	0.4%
Scenario		A	B	C	D	E	F	G		A	B	C	D	E	F	G		A	B	C	D	E	F	G	
NYCT Subway																									
Inbound	900,899	913,149	912,186	914,960	918,589	921,066	919,986	913,556	909,302	12,250	11,287	14,061	17,690	20,166	19,086	12,657	8,403	1.4%	1.3%	1.6%	2.0%	2.2%	2.1%	1.4%	0.9%
60th Street Cordon	311,854	315,733	315,406	315,712	317,561	318,083	317,253	315,867	313,666	3,879	3,553	3,858	5,708	6,229	5,400	4,014	1,813	1.2%	1.1%	1.2%	1.8%	2.0%	1.7%	1.3%	0.6%
Broadway (1,2,3)	77,497	78,349	78,356	78,328	78,800	78,943	78,727	78,407	77,749	853	860	832	1,303	1,446	1,231	910	252	1.1%	1.1%	1.1%	1.7%	1.9%	1.6%	1.2%	0.3%
8th Avenue (A, C, B, D)	93,471	94,274	94,262	94,396	94,818	94,810	94,710	94,165	93,719	803	791	925	1,347	1,339	1,239	694	249	0.9%	0.8%	1.0%	1.4%	1.4%	1.3%	0.7%	0.3%
Lexington Avenue (4, 5, 6)	69,415	70,708	70,455	70,606	70,967	71,251	70,951	70,680	70,100	1,294	1,040	1,191	1,553	1,836	1,536	1,266	685	1.9%	1.5%	1.7%	2.2%	2.6%	2.2%	1.8%	1.0%
2nd Avenue (Q)	71,471	72,401	72,333	72,381	72,977	73,079	72,865	72,615	72,098	930	861	910	1,505	1,608	1,394	1,144	627	1.3%	1.2%	1.3%	2.1%	2.2%	2.0%	1.6%	0.9%
Queens Cordon	216,444	219,084	218,732	219,880	220,478	221,276	221,502	218,757	217,911	2,639	2,288	3,436	4,033	4,832	5,058	2,313	1,467	1.2%	1.1%	1.6%	1.9%	2.2%	2.3%	1.1%	0.7%
63rd Street (F)	51,020	51,428	51,545	51,757	51,778	51,913	52,072	51,535	51,187	408	525	737	758	893	1,052	515	167	0.8%	1.0%	1.4%	1.5%	1.7%	2.1%	1.0%	0.3%
60th Street (R)	12,902	13,201	13,130	13,166	13,232	13,299	13,308	13,120	12,980	299	229	264	331	398	407	218	79	2.3%	1.8%	2.0%	2.6%	3.1%	3.2%	1.7%	0.6%
60th Street (N, W)	28,709	29,302	29,273	29,335	29,478	29,557	29,612	29,243	29,056	593	564	626	769	848	903	534	347	2.1%	2.0%	2.2%	2.7%	3.0%	3.1%	1.9%	1.2%
53rd Street (E, M)	60,056	60,820	60,652	61,069	61,387	61,587	61,494	60,770	60,495	764	595	1,013	1,330	1,531	1,438	713	439	1.3%	1.0%	1.7%	2.2%	2.5%	2.4%	1.2%	0.7%
Steinway Tunnel (7)	63,757	64,332	64,132	64,553	64,603	64,920	65,015	64,090	64,192	575	374	796	845	1,163	1,258	332	435	0.9%	0.6%	1.2%	1.3%	1.8%	2.0%	0.5%	0.7%
Brooklyn Cordon	372,601	378,333	378,048	379,369	380,550	381,707	381,230	378,932	377,725	5,732	5,446	6,767	7,949	9,105	8,629	6,330	5,124	1.5%	1.5%	1.8%	2.1%	2.4%	2.3%	1.7%	1.4%
14th Street (L)	49,801	50,573	50,580	50,776	50,834	51,051	50,906	50,664	50,376	772	779	975	1,033	1,250	1,104	863	574	1.6%	1.6%	2.0%	2.1%	2.5%	2.2%	1.7%	1.2%
Williamsburg Bridge (J, M, Z)	35,369	36,215	36,279	36,266	36,439	36,558	36,471	36,161	36,083	847	910	897	1,070	1,189	1,102	792	715	2.4%	2.6%	2.5%	3.0%	3.4%	3.1%	2.2%	2.0%
Rutgers Street (F)	41,591	42,114	42,088	42,190	42,328	42,426	42,318	42,162	42,133	522	497	598	737	834	727	571	542	1.3%	1.2%	1.4%	1.8%	2.0%	1.7%	1.4%	1.3%
Manhattan Bridge (B, D, N, Q)	107,696	109,253	109,141	109,823	110,234	110,557	110,340	109,597	109,240	1,557	1,445	2,127	2,538	2,861	2,643	1,901	1,544	1.4%	1.3%	2.0%	2.4%	2.7%	2.5%	1.8%	1.4%
Cranberry Street (A, C)	71,587	72,583	72,481	72,701	72,852	73,038	72,947	72,610	72,378	995	894	1,114	1,265	1,450	1,360	1,023	791	1.4%	1.2%	1.6%	1.8%	2.0%	1.9%	1.4%	1.1%
Clark Street (2, 3)	29,111	29,626	29,539	29,553	29,717	29,754	29,915	29,636	29,426	515	428	442	606	643	804	525	315	1.8%	1.5%	1.5%	2.1%	2.2%	2.8%	1.8%	1.1%
Montague Street (R)	11,089	11,148	11,163	11,210	11,231	11,279	11,268	11,272	11,372	59	74	121	142	190	179	183	283	0.5%	0.7%	1.1%	1.3%	1.7%	1.6%	1.7%	2.6%
Joralmon Street (4, 5)	26,356	26,821	26,776	26,850	26,914	27,043	27,065	26,829	26,717	465	420	493	558	686	709	473	361	1.8%	1.6%	1.9%	2.1%	2.6%	2.7%	1.8%	1.4%
PATH																									
Inbound	134,735	136,302	136,291	136,790	137,253	137,339	137,264	136,396	135,634	1,567	1,556	2,055	2,518	2,604	2,529	1,661	899	1.2%	1.2%	1.5%	1.5%	1.9%	1.9%	1.2%	0.7%
Christopher Street	43,258	44,123	43,992	44,361	44,498	44,538	44,611	44,112	44,138	865	733	1,103	1,240	1,280	1,352	853	880	2.0%	1.7%	2.5%	2.9%	3.0%	3.1%	2.0%	2.0%
World Trade Center	91,477	92,179	92,300	92,429	92,755	92,801	92,653	92,284	91,496	702	823	952	1,278	1,324	1,176	807	19	0.8%	0.9%	1.0%	1.4%	1.4%	1.3%	0.9%	0.0%



Final EA Appendix 4A2, Table 4A.2-13. Change in Mode Share to the Manhattan CBD (2045) – with Adopted Toll Structure Added

Daily Journeys										Percent Change							
Scenario										Scenario							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
Total Person Journeys to CBD	2,060,217	2,059,673	2,063,862	2,061,591	2,056,916	2,058,663	2,061,603	2,058,403	2,063,181	0%	0%	0%	0%	0%	0%	0%	0.1%
Drive Alone	195,550	179,719	179,065	172,758	166,999	160,143	161,776	177,186	172,460	-8%	-8%	-12%	-15%	-18%	-17%	-9%	-11.8%
HOV / Shared Ride	137,365	137,579	137,323	137,086	135,196	133,715	134,701	137,052	136,712	0%	0%	0%	-2%	-3%	-2%	0%	-0.5%
Taxi / FHV	32,052	24,713	31,887	27,656	19,757	25,329	30,582	23,340	31,269	-23%	-1%	-14%	-38%	-21%	-5%	-27%	-2.4%
Commuter Rail	434,018	441,246	440,810	442,498	446,877	447,609	445,970	443,261	442,535	2%	2%	2%	3%	3%	3%	2%	2.0%
Other Transit (e.g., subway / bus)	1,204,475	1,220,058	1,218,095	1,224,960	1,231,326	1,235,246	1,232,204	1,220,754	1,223,554	1%	1%	2%	2%	3%	2%	1%	1.6%
Walk and Bike	53,205	52,634	52,918	52,894	52,808	52,810	52,531	53,039	52,870	-1%	-1%	-1%	-1%	-1%	-1%	0%	-0.6%
School Bus	3,552	3,724	3,764	3,739	3,953	3,811	3,839	3,771	3,781	5%	6%	5%	11%	7%	8%	6%	6.4%
Total Person Journeys from CBD	176,050	175,227	176,212	174,978	173,235	173,467	174,685	174,340	176,206	0%	0%	-1%	-2%	-1%	-1%	-1%	0.1%
Drive Alone	14,103	13,096	13,145	12,919	12,217	12,147	12,140	12,895	12,699	-7%	-7%	-8%	-13%	-14%	-14%	-9%	-10.0%
HOV / Shared Ride	32,631	32,135	32,170	31,637	31,603	30,924	31,264	32,100	31,995	-2%	-1%	-3%	-3%	-5%	-4%	-2%	-1.9%
Taxi / FHV	4,689	3,548	4,454	3,832	2,507	3,302	4,270	3,183	4,284	-24%	-5%	-18%	-47%	-30%	-9%	-32%	-8.6%
Commuter Rail	3,310	3,408	3,518	3,291	3,413	3,314	3,373	3,409	3,368	3%	6%	-1%	3%	0%	2%	3%	1.8%
Other Transit (e.g., subway / bus)	86,971	88,026	87,936	88,192	88,496	88,473	88,434	88,144	88,711	1%	1%	1%	2%	2%	2%	1%	2.0%
Walk and Bike	31,641	32,207	32,264	32,351	32,188	32,561	32,462	32,038	32,421	2%	2%	2%	2%	3%	3%	1%	2.5%
School Bus	2,705	2,807	2,725	2,756	2,811	2,746	2,742	2,571	2,728	4%	1%	2%	4%	2%	1%	-5%	0.9%
Total Person Journeys within CBD	920,923	921,442	919,896	923,570	924,139	924,368	922,735	922,384	921,550	0%	0%	0%	0%	0%	0%	0%	0.1%
Drive Alone	7,792	7,631	7,861	7,439	7,601	7,765	7,594	7,630	7,937	-2%	1%	-5%	-2%	0%	-3%	-2%	1.9%
HOV / Shared Ride	26,492	27,528	27,479	27,066	27,334	27,005	26,795	26,854	27,121	4%	4%	2%	3%	2%	1%	1%	2.4%
Taxi / FHV	29,189	29,450	29,354	29,935	29,513	29,346	29,389	29,533	26,007	1%	1%	3%	1%	1%	1%	1%	-10.9%
Commuter Rail										-	-	-	-	-	-	-	
Other Transit (e.g., subway / bus)	250,811	251,057	250,070	251,735	252,596	252,968	252,425	252,483	254,234	0%	0%	0%	1%	1%	1%	1%	1.4%
Walk and Bike	602,457	601,649	600,870	603,242	602,958	603,087	602,497	601,645	602,053	0%	0%	0%	0%	0%	0%	0%	-0.1%
School Bus	4,182	4,127	4,262	4,153	4,137	4,197	4,035	4,239	4,198	-1%	2%	-1%	-1%	0%	-4%	1%	0.4%

Final EA Appendix 4A2, Table 4A.2-14. Taxi and FHV Toll Volumes Entering/Leaving the Manhattan CBD by Screen Line/Crossing (2045) – with Adopted Toll Structure Added

Daily Volumes										Percent Change							
Scenario										Scenario							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
(by Screen Line/ Crossing)																	
Total	132,656	138,683	154,909	151,623	135,041	147,599	158,508	136,033	158,583	4.5%	16.8%	14.3%	1.8%	11.3%	19.5%	2.5%	19.5%
60th Street	41,578	41,765	50,684	51,367	43,181	49,315	55,614	40,153	53,701	0.4%	21.9%	23.5%	3.9%	18.6%	33.8%	-3.4%	29.2%
Inbound	22,780	23,265	27,915	29,344	25,933	29,118	32,416	22,413	30,285	2.1%	22.5%	28.8%	13.8%	27.8%	42.3%	-1.6%	32.9%
Outbound	18,825	18,530	22,801	22,055	17,277	20,226	23,226	17,772	23,444	-1.6%	21.1%	17.2%	-8.2%	7.4%	23.4%	-5.6%	24.5%
FDR DRIVE+WEST SIDE HWY	24,426	17,867	22,244	21,729	18,256	21,771	25,592	16,884	23,633	-26.9%	-8.9%	-11.0%	-25.3%	-10.9%	4.8%	-30.9%	-3.2%
West Side Highway / Route 9A	11,197	7,805	9,461	8,713	7,094	8,544	10,067	7,447	9,903	-30.3%	-15.5%	-22.2%	-36.6%	-23.7%	-10.1%	-33.5%	-11.6%
FDR Drive	13,229	10,062	12,783	13,016	11,162	13,227	15,525	9,437	13,730	-23.9%	-3.4%	-1.6%	-15.6%	0.0%	17.4%	-28.7%	3.8%
WEST AVENUES	6,880	5,755	7,255	6,334	4,763	5,556	6,674	5,291	6,843	-16.4%	5.5%	-7.9%	-30.8%	-19.2%	-3.0%	-23.1%	-0.5%
West End Ave	758	1,024	1,422	1,177	649	766	1,143	910	1,506	35.1%	87.6%	55.3%	-14.4%	1.1%	50.8%	20.1%	98.7%
Broadway	2,756	1,672	1,991	1,668	1,161	1,437	1,665	1,479	1,743	-39.3%	-27.8%	-39.5%	-57.9%	-47.9%	-39.6%	-46.3%	-36.8%
Amsterdam	1,431	1,418	1,809	1,657	1,351	1,581	1,843	1,281	1,649	-0.9%	26.4%	15.8%	-5.6%	10.5%	28.8%	-10.5%	15.2%
Columbus Ave	1,493	977	1,247	934	682	726	972	924	1,063	-34.6%	-16.5%	-37.4%	-54.3%	-51.4%	-34.9%	-38.1%	-28.8%
Eighth Avenue	442	664	786	898	920	1,046	1,051	697	882	50.2%	77.8%	103.2%	108.1%	136.7%	137.8%	57.7%	99.5%
EAST AVENUES	10,272	18,143	21,185	23,304	20,162	21,988	23,348	17,978	23,225	76.6%	106.2%	126.9%	96.3%	114.1%	127.3%	75.0%	126.1%
Fifth Avenue	1,929	940	1,166	788	529	658	780	958	886	-51.3%	-39.6%	-59.1%	-72.6%	-65.9%	-50.3%	-54.1%	-54.1%
Madison Avenue	209	110	184	152	154	127	204	127	168	-47.4%	-12.0%	-27.3%	-26.3%	-39.2%	-2.4%	-39.2%	-19.6%
Park Avenue	1,872	1,580	1,827	1,772	1,418	1,626	1,886	1,544	1,851	-15.6%	-2.4%	-5.3%	-24.3%	-13.1%	0.7%	-17.5%	-1.1%
Lexington Avenue	608	797	1,052	1,428	1,055	1,231	1,166	778	1,096	31.1%	73.0%	134.9%	73.5%	102.5%	91.8%	28.0%	80.3%
Third Avenue	959	758	994	1,058	1,040	1,341	1,333	712	1,098	-21.0%	3.6%	10.3%	8.4%	39.8%	39.0%	-25.8%	14.5%
Second Avenue	1,343	7,570	8,531	9,717	9,243	10,016	10,209	7,608	10,019	463.7%	535.2%	623.5%	588.2%	645.8%	660.2%	466.5%	646.0%
First Avenue	554	1,855	1,994	2,099	1,849	1,837	1,997	1,835	1,928	234.8%	259.9%	278.9%	233.8%	231.6%	260.5%	231.2%	248.0%
York Avenue	2,128	1,820	2,065	1,778	1,267	1,619	1,839	1,674	1,921	-14.5%	-3.0%	-16.4%	-40.5%	-23.9%	-13.6%	-21.3%	-9.7%
Ed Koch Queensboro Ramp	670	2,713	3,372	4,512	3,607	3,533	3,934	2,742	4,258	304.9%	403.3%	573.4%	438.4%	427.3%	487.2%	309.3%	535.5%
Queens	51,738	57,927	60,848	55,870	51,454	53,728	54,879	57,848	58,175	12.0%	17.6%	8.0%	-0.5%	3.8%	6.1%	11.8%	12.4%
Inbound	25,996	28,635	30,072	24,689	21,247	22,083	22,614	28,577	26,636	10.2%	15.7%	-5.0%	-18.3%	-15.1%	-13.0%	9.9%	2.5%
Outbound	25,745	29,296	30,778	31,184	30,210	31,649	32,268	29,274	31,542	13.8%	19.5%	21.1%	17.3%	22.9%	25.3%	13.7%	22.5%
Ed Koch Queensboro Bridge	7,468	14,678	16,418	27,707	31,369	33,102	33,680	14,513	24,157	96.5%	119.8%	271.0%	320.0%	343.3%	351.0%	94.3%	223.5%
Queens-Midtown Tunnel	44,270	43,249	44,430	28,163	20,085	20,626	21,199	43,335	34,018	-2.3%	0.4%	-36.4%	-54.6%	-53.4%	-52.1%	-2.1%	-23.2%
Brooklyn	28,064	23,897	28,051	29,656	26,520	29,540	33,347	22,929	31,490	-14.8%	0.0%	5.7%	-5.5%	5.3%	18.8%	-18.3%	12.2%
Inbound	12,826	10,654	12,596	15,798	15,189	16,714	18,682	10,197	16,015	-16.9%	-1.8%	23.2%	18.4%	30.3%	45.7%	-20.5%	24.9%
Outbound	15,246	13,251	15,461	13,864	11,338	12,832	14,671	12,740	15,483	-13.1%	1.4%	-9.1%	-25.6%	-15.8%	-3.8%	-16.4%	1.6%
Williamsburg Bridge	7,208	7,896	9,499	11,956	12,349	14,284	15,763	7,603	12,318	9.5%	31.8%	65.9%	71.3%	98.2%	118.7%	5.5%	70.9%
Manhattan Bridge	2,253	1,955	2,921	2,595	1,618	2,117	2,963	1,797	3,226	-13.2%	29.6%	15.2%	-28.2%	-6.0%	31.5%	-20.2%	43.2%
Brooklyn Bridge	3,497	1,887	2,473	2,253	1,737	2,042	2,597	1,657	2,579	-46.0%	-29.3%	-35.6%	-50.3%	-41.6%	-25.7%	-52.6%	-26.3%
Hugh Carey Tunnel	15,106	12,159	13,158	12,852	10,816	11,097	12,024	11,872	13,367	-19.5%	-12.9%	-14.9%	-28.4%	-26.5%	-20.4%	-21.4%	-11.5%
New Jersey	11,276	15,094	15,326	14,730	13,886	15,016	14,668	15,103	15,217	33.9%	35.9%	30.6%	23.1%	33.2%	30.1%	33.9%	35.0%
Inbound	5,259	7,306	7,457	6,618	5,865	6,721	6,417	7,312	7,085	38.9%	41.8%	25.8%	11.5%	27.8%	22.0%	39.0%	34.7%
Outbound	6,020	7,790	7,872	8,115	8,024	8,297	8,254	7,794	8,135	29.4%	30.8%	34.8%	33.3%	37.8%	37.1%	29.5%	35.1%
Holland Tunnel	3,915	6,603	6,859	6,788	6,748	7,594	7,136	6,834	7,045	68.7%	75.2%	73.4%	72.4%	94.0%	82.3%	74.6%	79.9%
Lincoln Tunnel	7,361	8,491	8,467	7,942	7,138	7,422	7,532	8,269	8,172	15.4%	15.0%	7.9%	-3.0%	0.8%	2.3%	12.3%	11.0%

Note: Taxis and FHV's would potentially be exempt from the CBD toll, receive a toll discount, or be subject to some other toll reduction such as a cap.

Final EA Appendix 4A2, Table 4A.2-15. Truck Toll Volumes Entering/Leaving the Manhattan CBD by Screen Line/Crossing (2045) – with Adopted Toll Structure Added

Daily Volumes										Percent Change							
Scenario										Scenario							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
<i>(by Screen Line/ Crossing)</i>																	
Total	140,805	124,489	123,697	122,869	121,203	118,152	118,163	133,112	124,953	-11.6%	-12.2%	-12.7%	-13.9%	-16.1%	-16.1%	-5.5%	-11.2%
60th Street	52,051	41,877	41,575	40,337	39,157	38,317	38,943	43,833	40,938	-19.5%	-20.1%	-22.5%	-24.8%	-26.4%	-25.2%	-15.8%	-21.3%
Inbound	27,554	21,729	21,532	20,309	19,279	18,808	19,279	22,946	20,804	-21.1%	-21.9%	-26.3%	-30.0%	-31.7%	-30.0%	-16.7%	-24.5%
Outbound	24,527	20,172	20,073	20,058	19,909	19,540	19,696	20,954	20,212	-17.8%	-18.2%	-18.2%	-18.8%	-20.3%	-19.7%	-14.6%	-17.6%
FDR DRIVE+WEST SIDE HWY	4,739	4,684	4,653	4,979	5,295	5,370	5,228	4,803	4,949	-1.2%	-1.8%	5.1%	11.7%	13.3%	10.3%	1.4%	4.4%
West Side Highway / Route 9A	1,609	2,180	2,183	2,372	2,493	2,492	2,443	2,242	2,317	35.5%	35.7%	47.4%	54.9%	54.9%	51.8%	39.3%	44.0%
FDR Drive	3,130	2,504	2,470	2,607	2,802	2,878	2,785	2,561	2,632	-20.0%	-21.1%	-16.7%	-10.5%	-8.1%	-11.0%	-18.2%	-15.9%
WEST AVENUES	19,208	15,421	15,245	14,583	14,145	13,943	14,205	16,274	14,962	-19.7%	-20.6%	-24.1%	-26.4%	-27.4%	-26.0%	-15.3%	-22.0%
West End Ave	4,623	2,284	2,187	1,666	1,329	1,152	1,344	2,809	1,960	-50.6%	-52.7%	-64.0%	-71.3%	-75.1%	-70.9%	-39.2%	-57.6%
Broadway	6,450	6,596	6,635	6,849	6,956	7,060	6,988	6,517	6,700	2.3%	2.9%	6.2%	7.8%	9.5%	8.3%	1.0%	3.9%
Amsterdam	4,247	2,700	2,585	2,279	2,056	1,944	2,043	3,172	2,516	-36.4%	-39.1%	-46.3%	-51.6%	-54.2%	-51.9%	-25.3%	-40.7%
Columbus Ave	2,771	2,675	2,669	2,587	2,553	2,545	2,587	2,642	2,600	-3.5%	-3.7%	-6.6%	-7.9%	-8.2%	-6.6%	-4.7%	-6.1%
Eighth Avenue	1,117	1,166	1,169	1,202	1,251	1,242	1,243	1,134	1,186	4.4%	4.7%	7.6%	12.0%	11.2%	11.3%	1.5%	6.7%
EAST AVENUES	28,104	21,772	21,677	20,775	19,717	19,004	19,510	22,756	21,027	-22.5%	-22.9%	-26.1%	-29.8%	-32.4%	-30.6%	-19.0%	-25.1%
Fifth Avenue	2,013	1,856	1,853	1,720	1,643	1,616	1,670	1,869	1,820	-7.8%	-7.9%	-14.6%	-18.4%	-19.7%	-17.0%	-7.2%	-9.5%
Madison Avenue	887	831	828	825	824	823	831	818	838	-6.3%	-6.7%	-7.0%	-7.1%	-7.2%	-6.3%	-7.8%	-5.2%
Park Avenue	4,186	3,474	3,507	3,425	3,433	3,363	3,386	3,462	3,433	-17.0%	-16.2%	-18.2%	-18.0%	-19.7%	-19.1%	-17.3%	-17.9%
Lexington Avenue	3,803	3,281	3,253	3,266	3,275	3,293	3,361	3,222	3,205	-13.7%	-14.5%	-14.1%	-13.9%	-13.4%	-11.6%	-15.3%	-15.6%
Third Avenue	3,927	4,051	4,040	4,039	3,789	3,639	3,721	4,038	4,017	3.2%	2.9%	2.9%	-3.5%	-7.3%	-5.2%	2.8%	2.4%
Second Avenue	6,070	4,432	4,341	3,790	3,091	2,729	2,951	5,289	4,027	-27.0%	-28.5%	-37.6%	-49.1%	-55.0%	-51.4%	-12.9%	-33.6%
First Avenue	2,753	2,653	2,663	2,665	2,689	2,567	2,628	2,919	2,657	-3.6%	-3.3%	-3.2%	-2.3%	-6.8%	-4.5%	6.0%	-3.3%
York Avenue	1,330	851	849	721	644	634	632	794	696	-36.0%	-36.2%	-45.8%	-51.6%	-52.3%	-52.5%	-40.3%	-47.5%
Ed Koch Queensboro Ramp	3,135	343	343	324	329	340	330	345	334	-89.1%	-89.1%	-89.7%	-89.5%	-89.2%	-89.5%	-89.0%	-89.3%
Queens	25,494	24,760	24,583	23,990	23,102	22,203	22,599	26,008	24,252	-2.9%	-3.6%	-5.9%	-9.4%	-12.9%	-11.4%	2.0%	-4.8%
Inbound	14,324	13,561	13,469	13,350	12,946	12,498	12,636	13,912	13,356	-5.3%	-6.0%	-6.8%	-9.6%	-12.7%	-11.8%	-2.9%	-6.8%
Outbound	11,174	11,202	11,116	10,642	10,159	9,707	9,968	12,107	10,903	0.3%	-0.5%	-4.8%	-9.1%	-13.1%	-10.8%	8.3%	-2.4%
Ed Koch Queensboro Bridge	19,337	19,124	18,998	18,354	17,339	16,401	17,884	20,399	18,326	-1.1%	-1.8%	-5.1%	-10.3%	-15.2%	-7.5%	5.5%	-5.2%
Queens-Midtown Tunnel	6,157	5,636	5,585	5,636	5,763	5,802	4,715	5,609	5,926	-8.5%	-9.3%	-8.5%	-6.4%	-5.8%	-23.4%	-8.9%	-3.7%
Brooklyn	34,484	31,412	31,265	31,554	31,733	31,150	30,743	33,905	32,107	-8.9%	-9.3%	-8.5%	-8.0%	-9.7%	-10.8%	-1.7%	-6.9%
Inbound	14,068	13,071	13,001	12,782	12,689	12,589	12,790	14,164	13,119	-7.1%	-7.6%	-9.1%	-9.8%	-10.5%	-9.1%	0.7%	-6.7%
Outbound	20,423	18,347	18,270	18,779	19,053	18,570	17,962	19,756	19,003	-10.2%	-10.5%	-8.0%	-6.7%	-9.1%	-12.1%	-3.3%	-6.9%
Williamsburg Bridge	10,192	10,141	10,073	10,221	10,491	10,334	10,309	11,200	10,444	-0.5%	-1.2%	0.3%	2.9%	1.4%	1.1%	9.9%	2.5%
Manhattan Bridge	15,711	13,062	12,976	13,170	12,923	12,472	12,250	14,453	13,519	-16.9%	-17.4%	-16.2%	-17.7%	-20.6%	-22.0%	-8.0%	-13.9%
Brooklyn Bridge	3,920	3,578	3,594	3,613	3,838	3,884	3,831	3,655	3,618	-8.7%	-8.3%	-7.8%	-2.1%	-0.9%	-2.3%	-6.8%	-7.7%
Hugh Carey Tunnel	4,661	4,631	4,622	4,550	4,481	4,460	4,353	4,597	4,526	-0.6%	-0.8%	-2.4%	-3.9%	-4.3%	-6.6%	-1.4%	-2.8%
New Jersey	28,776	26,440	26,274	26,988	27,211	26,482	25,878	29,366	27,656	-8.1%	-8.7%	-6.2%	-5.4%	-8.0%	-10.1%	2.1%	-3.9%
Inbound	18,333	17,080	17,028	18,057	18,652	18,086	17,325	18,704	18,267	-6.8%	-7.1%	-1.5%	1.7%	-1.3%	-5.5%	2.0%	-0.4%
Outbound	10,447	9,363	9,248	8,934	8,561	8,400	8,556	10,669	9,396	-10.4%	-11.5%	-14.5%	-18.1%	-19.6%	-18.1%	2.1%	-10.0%
Holland Tunnel	14,154	13,032	13,013	13,260	13,355	12,993	12,409	15,178	14,010	-7.9%	-8.1%	-6.3%	-5.6%	-8.2%	-12.3%	7.2%	-1.0%
Lincoln Tunnel	14,622	13,408	13,261	13,728	13,856	13,489	13,469	14,188	13,646	-8.3%	-9.3%	-6.1%	-5.2%	-7.7%	-7.9%	-3.0%	-6.7%



Final EA Appendix 4A2, Table 4A.2-16. Work Journeys to the Manhattan CBD by Origin County (2045) – with Adopted Toll Structure Added

Daily Journeys										Percent Change							
Scenario										Scenario							
Scenario	No Action	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE	A	B	C	D	E	F	G	ADOPTED TOLL STRUCTURE
Total Work Journeys to CBD	1,721,640	1,721,655	1,721,653	1,721,653	1,721,648	1,721,648	1,721,661	1,721,658	1,721,649	0%	0%	0%	0%	0%	0%	0%	0%
CBD	176,850	176,489	176,318	176,869	177,285	177,255	176,945	176,898	176,607	0%	0%	0%	0%	0%	0%	0%	0%
CBD	176,850	176,489	176,318	176,869	177,285	177,255	176,945	176,898	176,607	0%	0%	0%	0%	0%	0%	0%	0%
New York City	900,213	896,111	895,284	894,681	892,272	891,895	892,553	893,645	893,893	0%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Upper Manhattan	181,180	179,641	180,058	179,640	179,104	179,291	179,192	179,662	179,705	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Bronx	110,581	109,817	109,447	109,567	109,724	109,634	109,951	109,627	109,250	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Brooklyn	306,259	304,652	304,406	304,288	302,575	302,669	303,268	303,730	304,518	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Queens	274,950	274,259	273,649	273,230	272,605	271,943	272,024	273,063	272,632	0%	0%	-1%	-1%	-1%	-1%	-1%	-1%
Staten Island	27,243	27,742	27,724	27,956	28,264	28,358	28,118	27,563	27,788	2%	2%	3%	4%	4%	3%	1%	2%
Long Island	153,583	154,954	156,151	155,085	154,165	153,939	154,948	155,847	155,667	1%	2%	1%	0%	0%	1%	1%	1%
Nassau	106,854	107,027	108,324	107,046	105,860	105,833	106,850	107,663	107,316	0%	1%	0%	-1%	-1%	0%	1%	0%
Suffolk	46,729	47,927	47,827	48,039	48,305	48,106	48,098	48,184	48,351	3%	2%	3%	3%	3%	3%	3%	3%
Upstate New York	123,941	122,506	123,195	122,872	123,358	122,661	123,197	123,330	123,344	-1%	-1%	-1%	0%	-1%	-1%	0%	0%
Dutchess	6,965	7,092	6,857	6,941	6,995	7,031	7,033	7,035	6,839	2%	-2%	0%	0%	1%	1%	1%	-2%
Orange	21,067	21,108	21,359	21,542	21,825	22,000	21,966	21,365	21,453	0%	1%	2%	4%	4%	4%	1%	2%
Putnam	2,076	2,044	2,023	1,968	1,994	1,974	1,965	1,929	2,107	-2%	-3%	-5%	-4%	-5%	-5%	-7%	1%
Rockland	10,303	9,752	10,279	10,534	10,212	10,069	10,435	10,202	10,185	-5%	0%	2%	-1%	-2%	1%	-1%	-1%
Westchester	83,530	82,510	82,677	81,887	82,332	81,587	81,798	82,799	82,760	-1%	-1%	-2%	-1%	-2%	-2%	-1%	-1%
New Jersey	288,193	292,469	292,005	293,257	294,986	296,494	295,065	292,459	293,086	1%	1%	2%	2%	3%	2%	1%	2%
Bergen	37,798	37,866	37,844	38,344	38,555	38,674	38,729	37,651	37,959	0%	0%	1%	2%	2%	2%	0%	0%
Essex	32,027	32,599	32,352	32,488	32,528	32,724	32,797	32,481	32,383	2%	1%	1%	2%	2%	2%	1%	1%
Hudson	101,924	103,139	102,857	103,166	103,802	104,590	104,024	103,336	103,969	1%	1%	1%	2%	3%	2%	1%	2%
Hunterdon	2,557	2,575	2,554	2,595	2,626	2,580	2,577	2,609	2,560	1%	0%	1%	3%	1%	1%	2%	0%
Mercer	8,184	8,235	8,264	8,314	8,333	8,252	8,282	8,288	8,259	1%	1%	2%	2%	1%	1%	1%	1%
Middlesex	29,124	29,635	29,510	29,645	29,982	29,791	29,670	29,558	29,381	2%	1%	2%	3%	2%	2%	1%	1%
Monmouth	17,905	18,162	18,215	18,102	18,282	18,280	18,086	18,227	18,147	1%	2%	1%	2%	2%	1%	2%	1%
Morris	8,629	8,881	9,006	9,080	9,024	9,219	9,026	8,900	8,985	3%	4%	5%	5%	7%	5%	3%	4%
Ocean	12,604	12,650	12,759	12,695	12,633	12,725	12,706	12,639	12,585	0%	1%	1%	0%	1%	1%	0%	0%
Passaic	9,327	10,028	10,035	10,190	10,319	10,409	10,171	10,112	10,132	8%	8%	9%	11%	12%	9%	8%	9%
Somerset	5,287	5,494	5,464	5,517	5,490	5,661	5,561	5,476	5,443	4%	3%	4%	4%	7%	5%	4%	3%
Sussex	3,248	3,263	3,285	3,333	3,279	3,338	3,305	3,297	3,306	0%	1%	3%	1%	3%	2%	2%	2%
Union	18,494	18,829	18,764	18,689	19,013	19,132	19,029	18,759	18,895	2%	1%	1%	3%	3%	3%	1%	2%
Warren	1,085	1,113	1,096	1,099	1,120	1,119	1,102	1,126	1,082	3%	1%	1%	3%	3%	2%	4%	0%
Connecticut	78,860	79,126	78,700	78,889	79,582	79,404	78,953	79,479	79,052	0%	0%	0%	1%	1%	0%	1%	0%
Fairfield	49,537	49,470	49,133	49,254	49,855	49,715	49,330	49,767	49,423	0%	-1%	-1%	1%	0%	0%	0%	0%
New Haven	29,323	29,656	29,567	29,635	29,727	29,689	29,623	29,712	29,629	1%	1%	1%	1%	1%	1%	1%	1%

CENTRAL BUSINESSDISTRICT(CBD) TOLLING PROGRAM

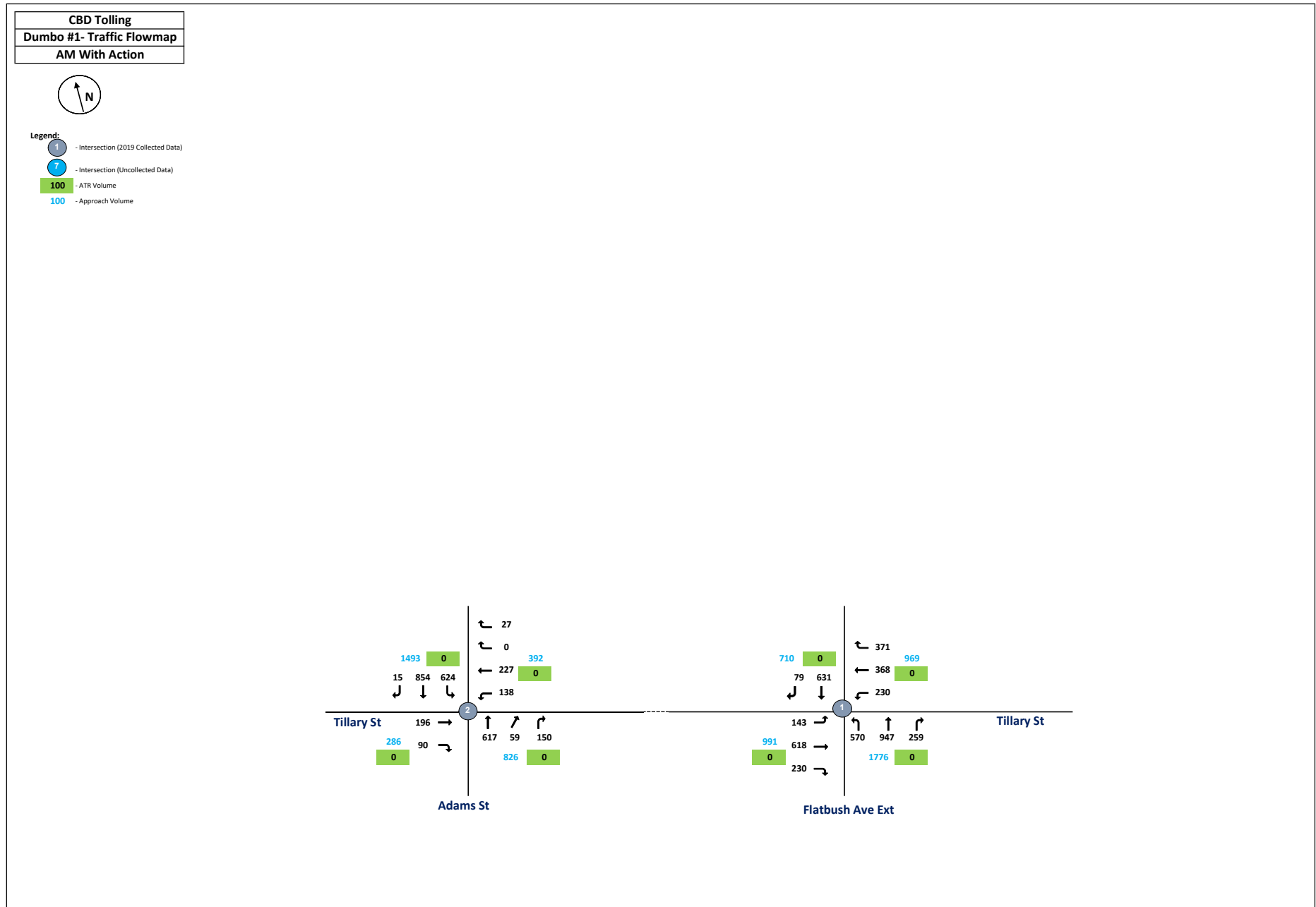
# Appendix 4B.2, Transportation: Traffic Flow Maps

2024

DUMBO

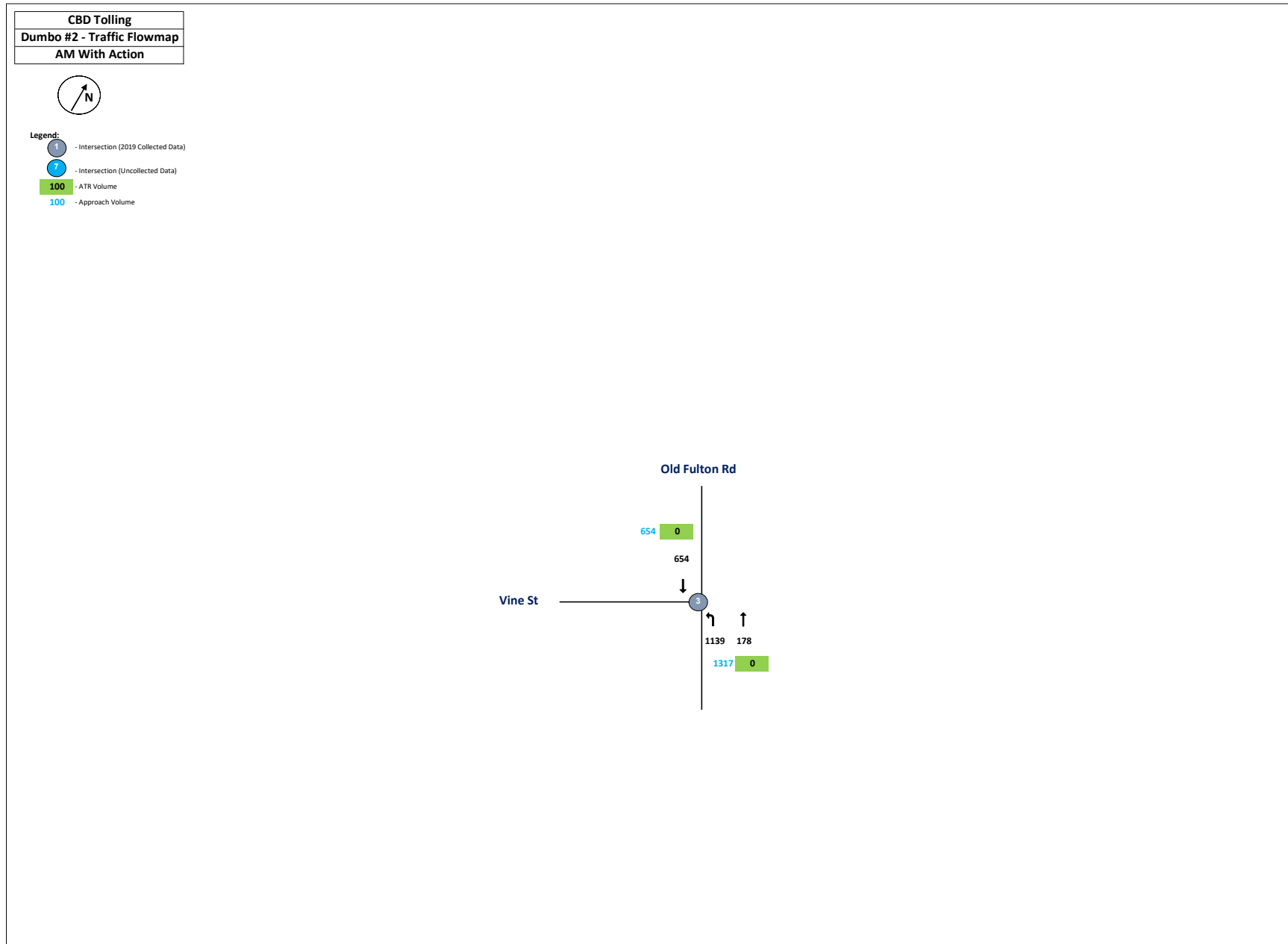
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Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			AM Peak Hour					
			L2	L	T	R	R2	Total
Tillary St & Flatbush Ave ext <b>2019 (TMC-007)</b>	<b>1</b>							
Tillary St	1	EB	0	143	618	230	0	
Tillary St	1	WB	0	230	368	371	0	
Flatbush Ave ext	1	NB	0	570	947	259	0	
Flatbush Ave ext	1	SB	0	0	631	79	0	<b>4446</b>
Tillary St & Adams St <b>2019 (TMC-008)</b>	<b>2</b>							
Tillary St	2	EB	0	0	196	90	0	
Tillary St	2	WB	0	138	227	0	27	
Adams St	2	NB	0	0	617	59	150	
Adams St	2	SB	0	624	854	15	0	<b>2997</b>
Vine St & Old Fulton Rd <b>2019 (TMC-009)</b>	<b>3</b>							
Vine St	3	EB	0	0	0	0	0	
Vine St	3	WB	0	0	0	0	0	
Old Fulton Rd	3	NB	0	1139	178	0	0	
Old Fulton Rd	3	SB	0	0	654	0	0	<b>1971</b>



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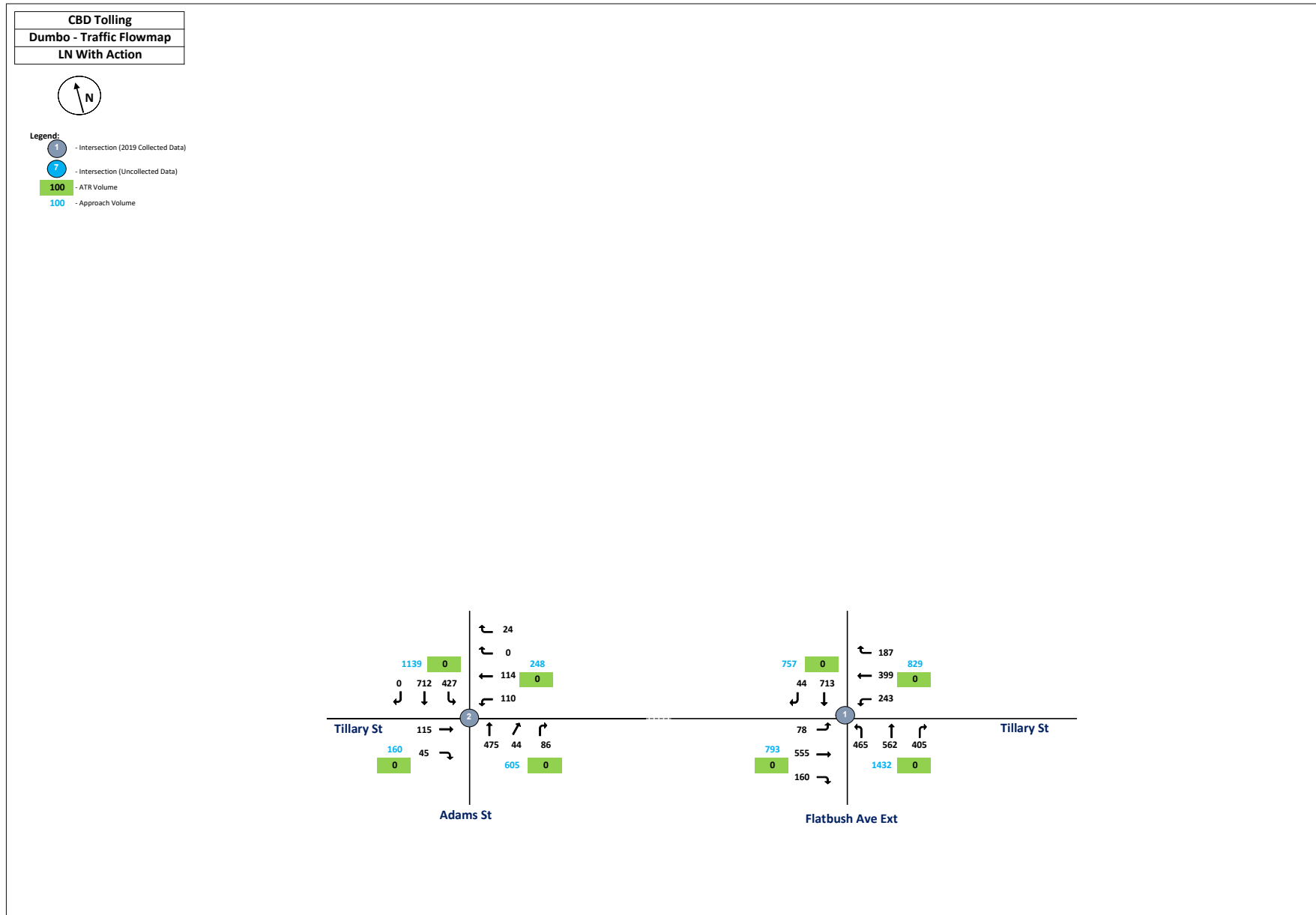
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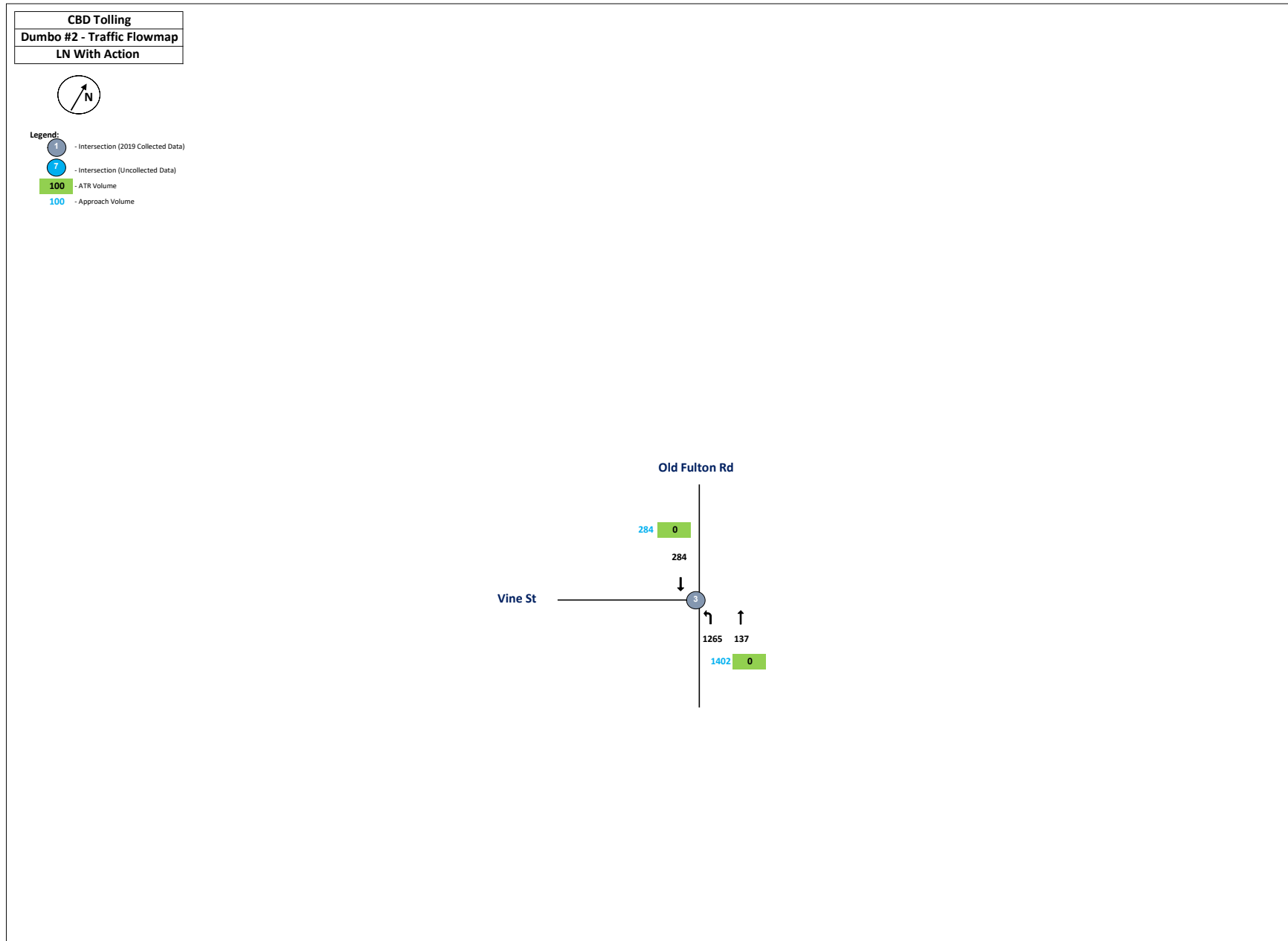
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Intersection	Node	Approach	Total Vehicles						
			Inbound/Outbound						
			LN Peak Hour						
			L2	L	T	R	R2	Total	
Tillary St & Flatbush Ave ext 2019 (TMC-007)	1								
Tillary St	1	EB	0	78	555	160	0		
Tillary St	1	WB	0	243	399	187	0		
Flatbush Ave ext	1	NB	0	465	562	405	0		
Flatbush Ave ext	1	SB	0	0	713	44	0	3811	
Tillary St & Adams St 2019 (TMC-008)	2								
Tillary St	2	EB	0	0	115	45	0		
Tillary St	2	WB	0	110	114	0	24		
Adams St	2	NB	0	0	475	44	86		
Adams St	2	SB	0	427	712	0	0	2152	
Vine St & Old Fulton Rd 2019 (TMC-009)	3								
Vine St	3	EB	0	0	0	0	0		
Vine St	3	WB	0	0	0	0	0		
Old Fulton Rd	3	NB	0	1265	137	0	0		
Old Fulton Rd	3	SB	0	0	284	0	0	1686	



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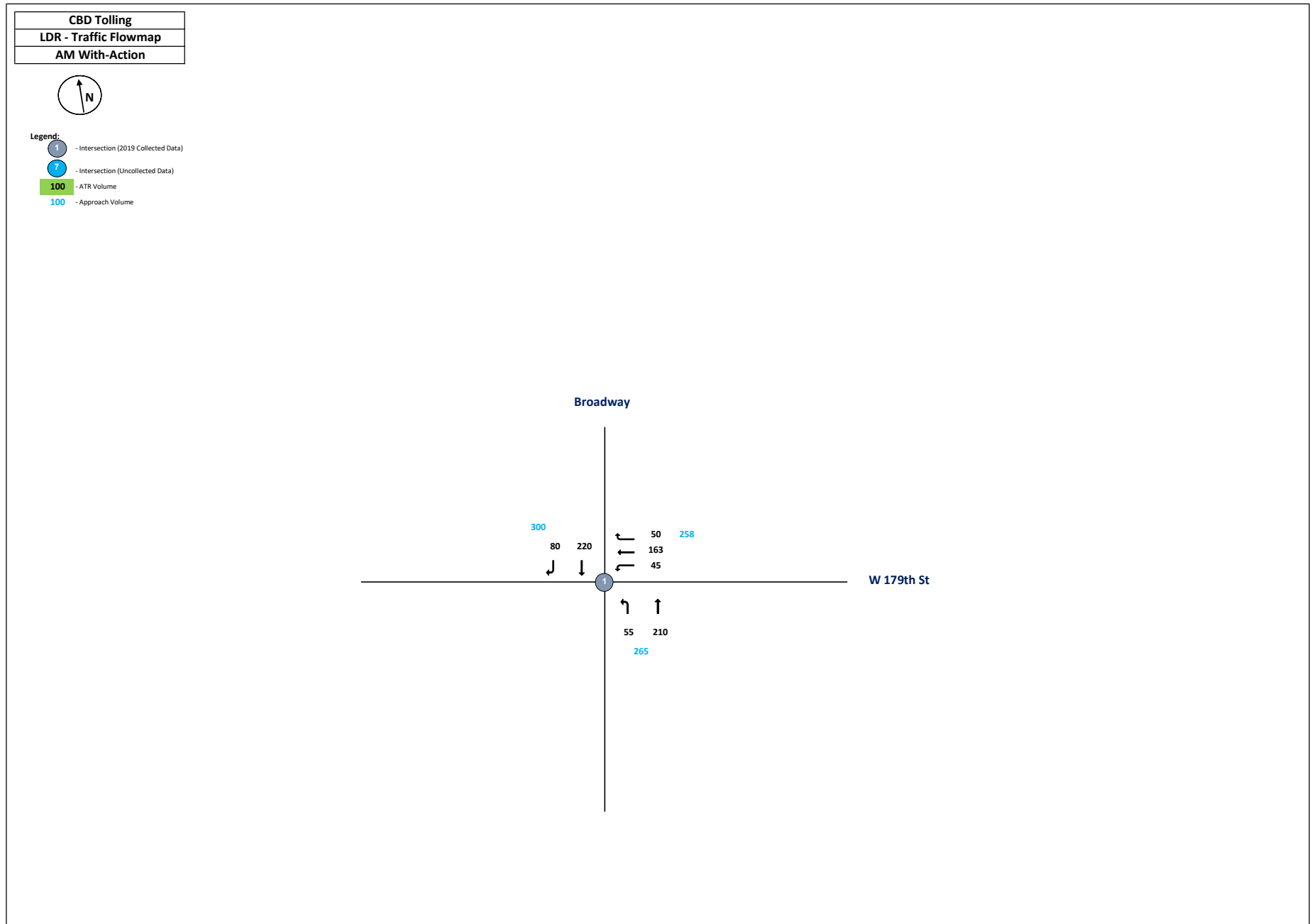
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LDR

8:00 AM

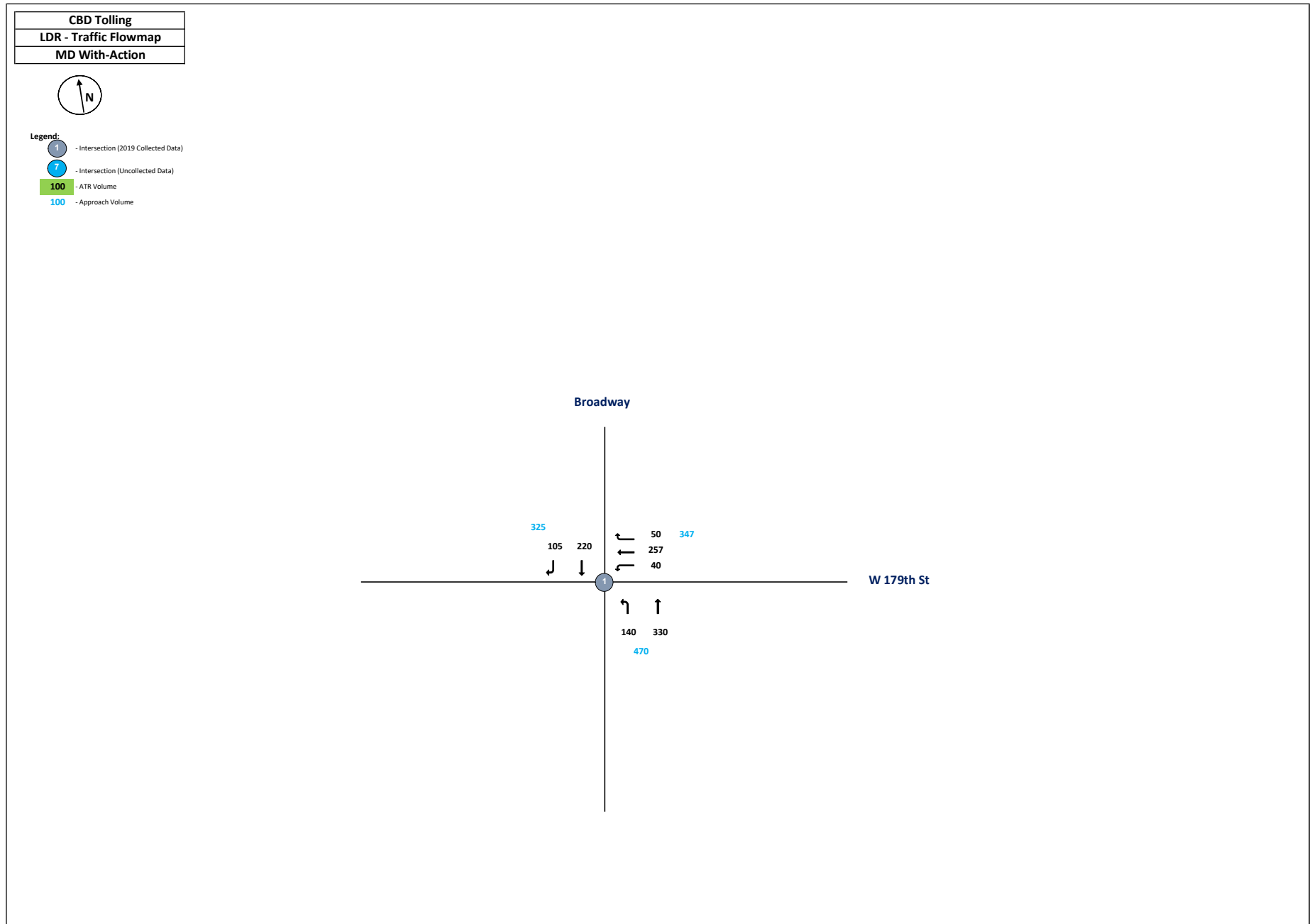
Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			AM Peak Hour					
			L2	L	T	R	R2	Total
Broadway & W 179th <b>2021 (LDR-01)</b>	<b>1</b>							
W 179th St	1	EB	0	0	0	0	0	
W 179th St	1	WB	0	45	163	50	0	
Broadway	1	NB	0	55	210	0	0	
Broadway	1	SB	0	0	220	80	0	<b>823</b>



LDR

1:00 PM

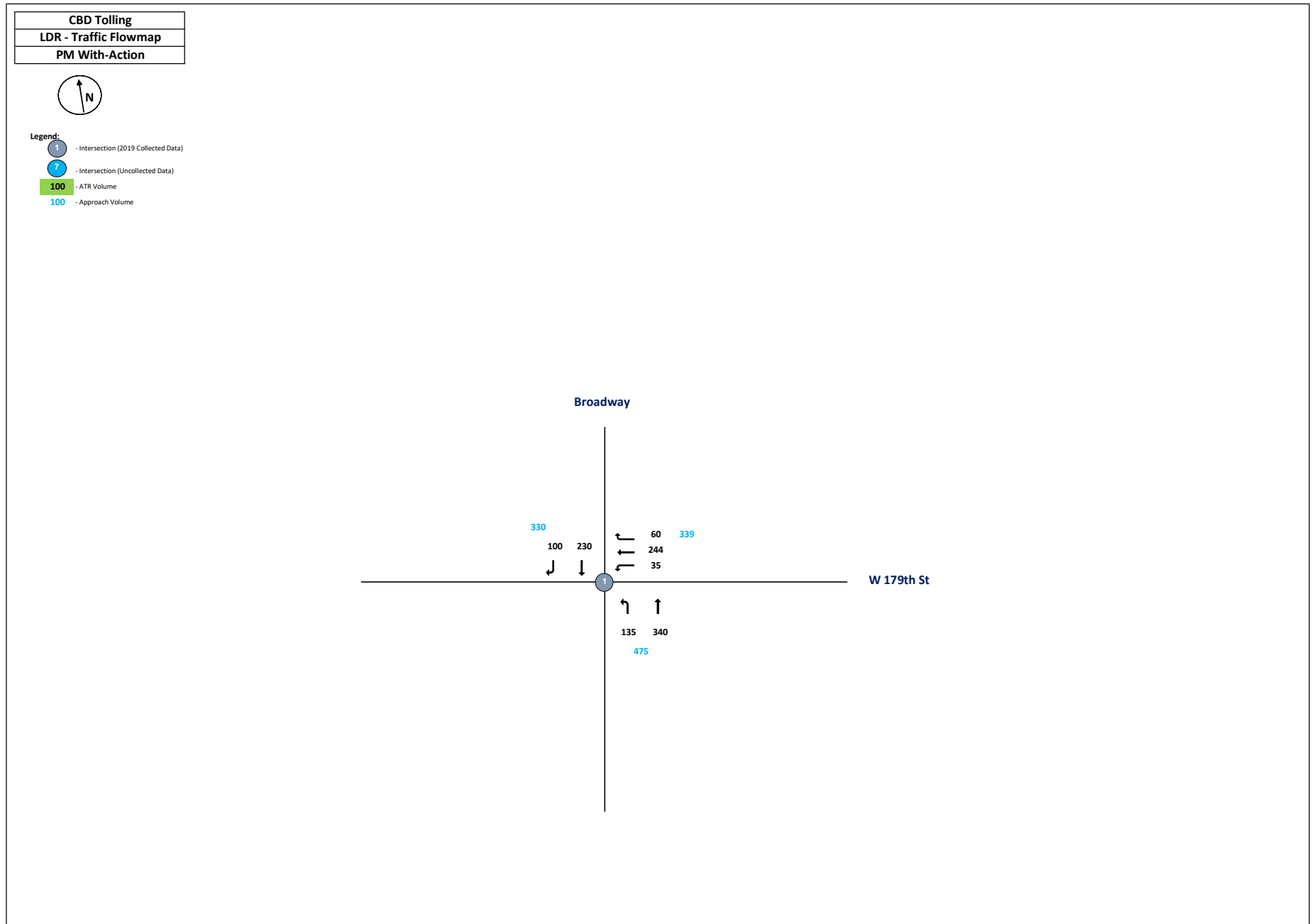
Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			MD Peak Hour					
			L2	L	T	R	R2	Total
Broadway & W 179th <b>2021 (LDR-01)</b>	<b>1</b>							
W 179th St	1	EB	0	0	0	0	0	
W 179th St	1	WB	0	40	257	50	0	
Broadway	1	NB	0	140	330	0	0	
Broadway	1	SB	0	0	220	105	0	<b>1142</b>



LDR

5:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			PM Peak Hour					
			L2	L	T	R	R2	Total
Broadway & W 179th <b>2021 (LDR-01)</b>	<b>1</b>							
W 179th St	1	EB	0	0	0	0	0	
W 179th St	1	WB	0	35	244	60	0	
Broadway	1	NB	0	135	340	0	0	
Broadway	1	SB	0	0	230	100	0	<b>1144</b>



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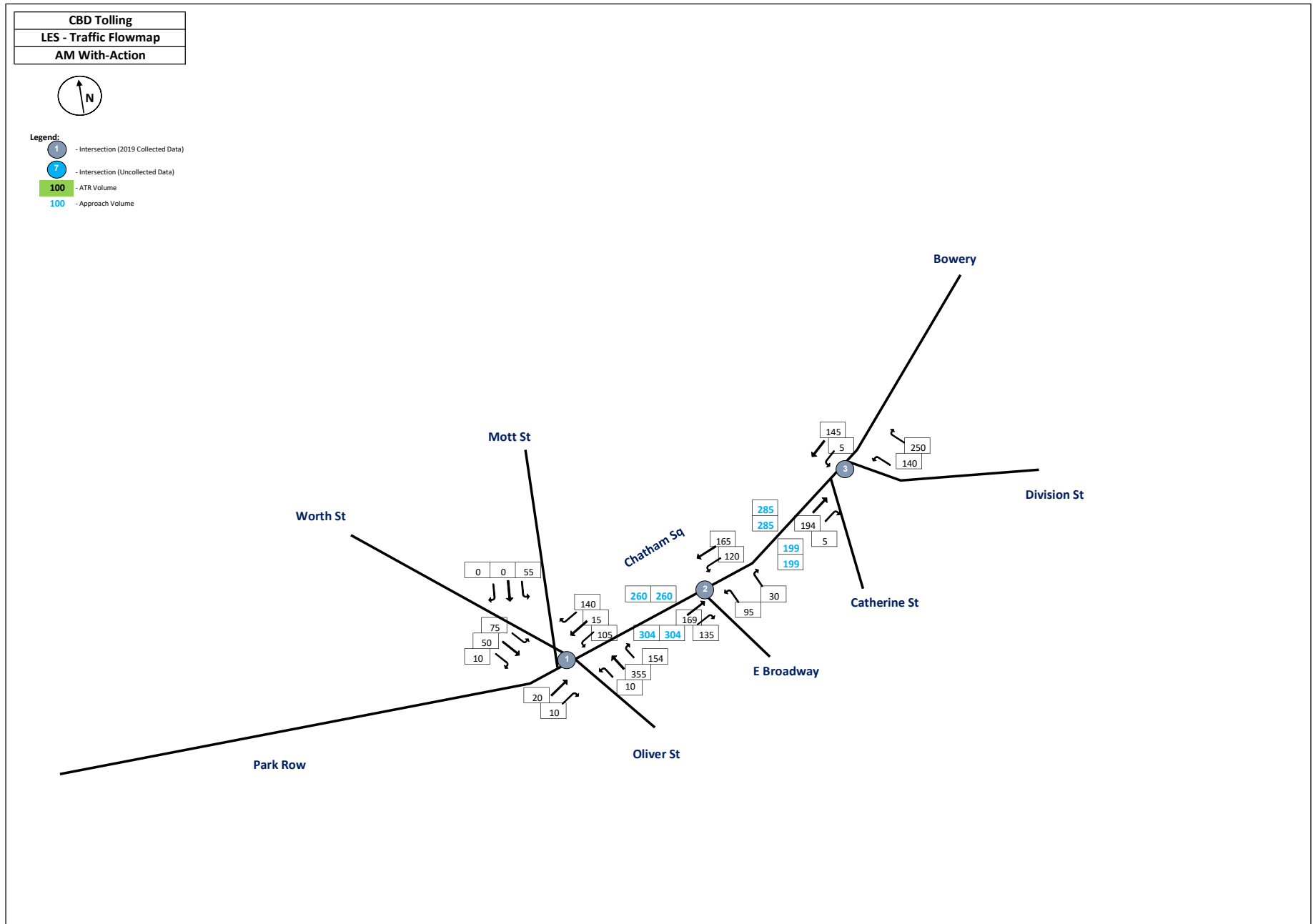
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LES

8:00 AM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			AM Peak Hour					
			L2	L	T	R	R2	Total
Worth St/Oliver St/Mott St & Chatham Square/Park Row								
<b>2022 (LES-01)</b>	<b>1</b>							
Mott St	1	SW	55	0	0	0	0	
Park Row	1	EB	0	0	20	10	0	
Chatham Sq	1	WB	0	105	15	140	0	
Oliver St	1	NB	0	10	355	0	154	
Worth St	1	SB	0	75	50	10	0	<b>999</b>
E Broadway & Chatham Sq								
<b>2022 (LES-02)</b>	<b>2</b>							
Chatham Sq	2	EB	0	0	169	135	0	
Chatham Sq	2	WB	0	120	165	0	0	
E Broadway	2	NB	0	95	0	30	0	
	2	SB	0	0	0	0	0	<b>714</b>
Division St/Doyers St/Catherine St & Chatham Square/Bowery								
<b>2022 (LES-03)</b>	<b>3</b>							
Chatham Sq	3	EB	0	0	194	0	5	
Bowery	3	WB	0	5	145	0	0	
Division St	3	NB	0	140	0	250	0	
	3	SB	0	0	0	0	0	<b>739</b>





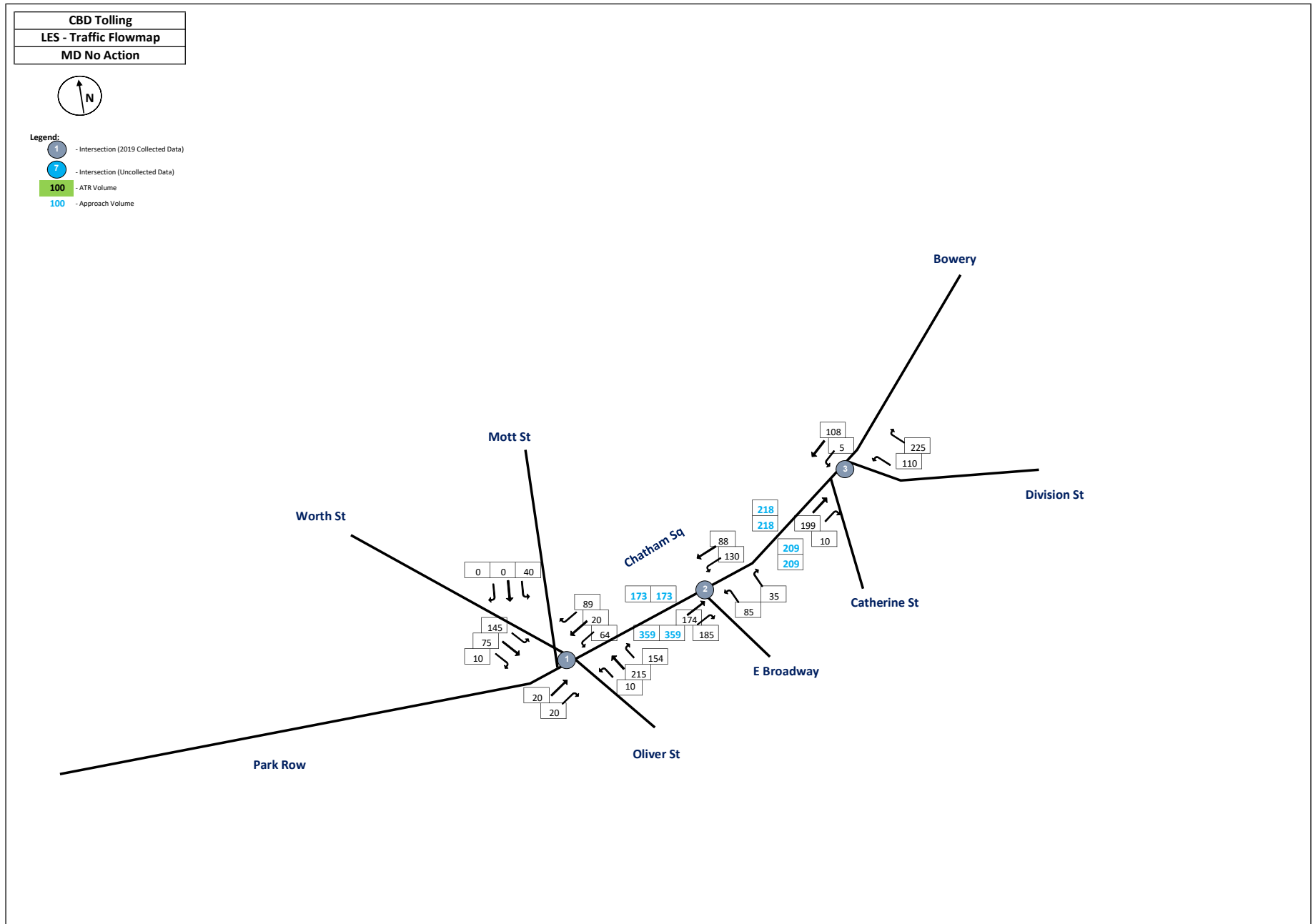
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DOT\_0046595

LES

1:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			MD Peak Hour					
			L2	L	T	R	R2	Total
Worth St/Oliver St/Mott St & Chatham Square/Park Row								
<b>2022 (LES-01)</b>	<b>1</b>							
Mott St	1	SW	40	0	0	0	0	
Park Row	1	EB	0	0	20	20	0	
Chatham Sq	1	WB	0	64	20	89	0	
Oliver St	1	NB	0	10	215	0	154	
Worth St	1	SB	0	145	75	10	0	<b>862</b>
E Broadway & Chatham Sq								
<b>2022 (LES-02)</b>	<b>2</b>							
Chatham Sq	2	EB	0	0	174	185	0	
Chatham Sq	2	WB	0	130	88	0	0	
E Broadway	2	NB	0	85	0	35	0	
	2	SB	0	0	0	0	0	<b>697</b>
Division St/Doyers St/Catherine St & Chatham Square/Bowery								
<b>2022 (LES-03)</b>	<b>3</b>							
Chatham Sq	3	EB	0	0	199	0	10	
Bowery	3	WB	0	5	108	0	0	
Division St	3	NB	0	110	0	225	0	
	3	SB	0	0	0	0	0	<b>657</b>



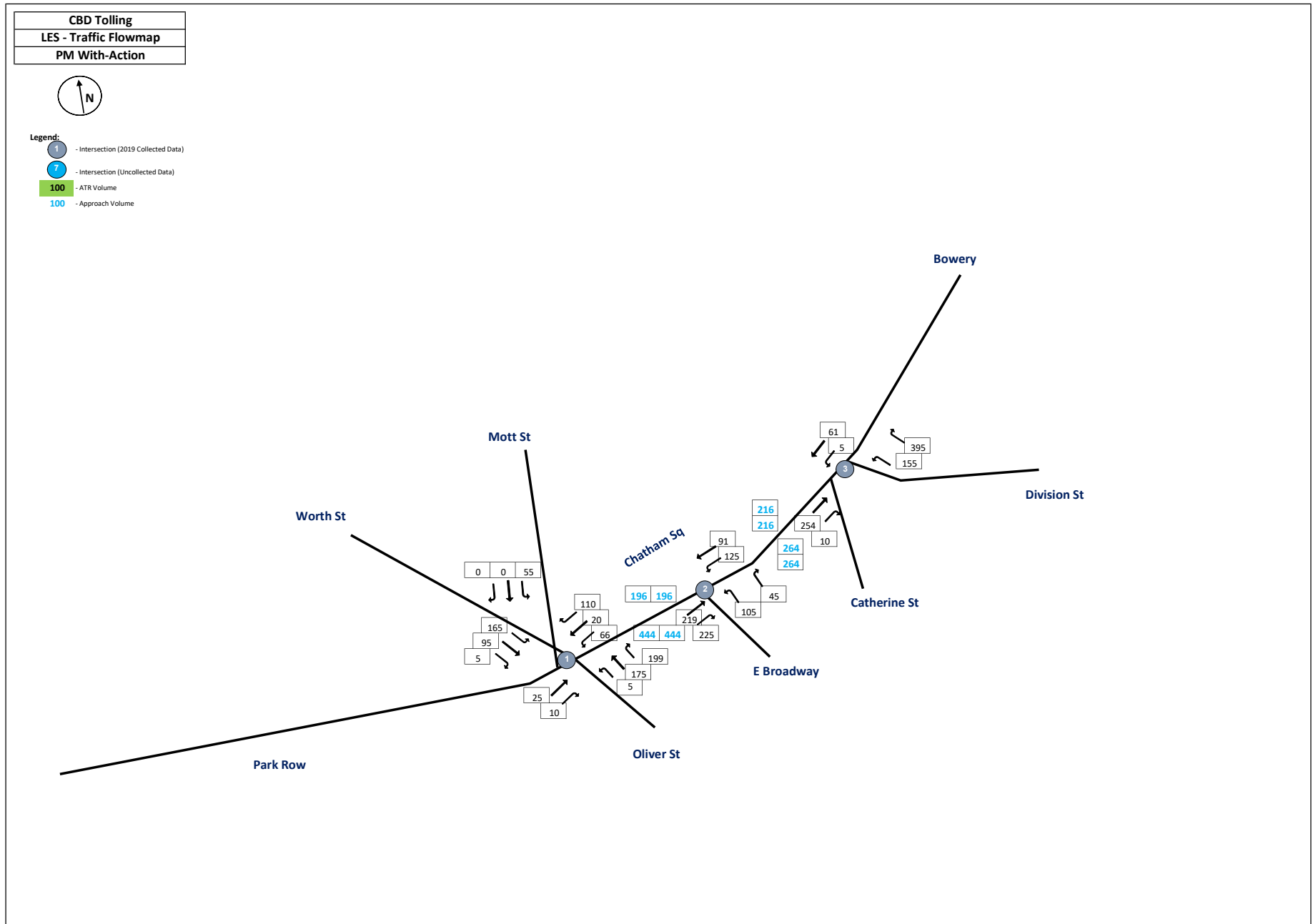
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LES

5:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			PM Peak Hour					
			L2	L	T	R	R2	Total
Worth St/Oliver St/Mott St & Chatham Square/Park Row								
<b>2022 (LES-01)</b>	<b>1</b>							
Mott St	1	SW	55	0	0	0	0	
Park Row	1	EB	0	0	25	10	0	
Chatham Sq	1	WB	0	66	20	110	0	
Oliver St	1	NB	0	5	175	0	199	
Worth St	1	SB	0	165	95	5	0	<b>930</b>
E Broadway & Chatham Sq								
<b>2022 (LES-02)</b>	<b>2</b>							
Chatham Sq	2	EB	0	0	219	225	0	
Chatham Sq	2	WB	0	125	91	0	0	
E Broadway	2	NB	0	105	0	45	0	
	2	SB	0	0	0	0	0	<b>810</b>
Division St/Doyers St/Catherine St & Chatham Square/Bowery								
<b>2022 (LES-03)</b>	<b>3</b>							
Chatham Sq	3	EB	0	0	254	0	10	
Bowery	3	WB	0	5	61	0	0	
Division St	3	NB	0	155	0	395	0	
	3	SB	0	0	0	0	0	<b>880</b>



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DOT\_0046599

LIC

8:00:00 AM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			AM Peak Hour					
			L2	L	T	R	R2	Total
11th St / Pulaski Bdrge & Jackson Ave <b>2017 --&gt; 2019 (LIC_1_TMC-6A)</b>	<b>1</b>							
Pulaski Bridge / 11th St	1	EB	0	25	55	0	0	
Pulaski Bridge / 11th St	1	WB	0	465	215	0	0	
Jackson Ave	1	NB	0	71	701	406	0	
Jackson Ave	1	SB	0	0	444	64	0	<b>2446</b>
11th St / 48th St <b>2017 --&gt; 2019 (LIC_1_TMC-6A)</b>	<b>111</b>							
11th St	111	EB	0	0	0	0	0	
11th St	111	WB	0	10	25	10	0	
48th St	111	NB	0	65	661	0	0	
48th St	111	SB	0	0	498	15	0	<b>1284</b>
Vernon Blvd & 50th Ave <b>2019 (TMC-001)</b>	<b>2</b>							
50th Ave	2	EB	0	35	64	30	0	
50th Ave	2	WB	0	0	0	0	0	
Vernon Blvd	2	NB	0	0	207	13	0	
Vernon Blvd	2	SB	0	44	163	0	0	<b>556</b>
Pulsaki Bridge & Green St <b>2019 (TMC-002)</b>	<b>3</b>							
Green St	3	EB	0	182	20	40	0	
Green St	3	WB	0	0	0	0	0	
Pulsaki Bridge	3	NB	0	0	1151	30	0	
Pulsaki Btridge	3	SB	0	73	942	0	0	<b>2438</b>
Pulsaki Bridge & Freeman St <b>2019 (TMC-003)</b>	<b>4</b>							
Freeman St	4	EB	0	0	0	0	0	
Freeman St	4	WB	0	0	0	179	0	
Pulsaki Bridge	4	NB	0	0	1333	0	0	
Pulsaki Btridge	4	SB	0	0	1015	115	0	<b>2642</b>
49th Ave & 21st St <b>2017 --&gt; 2019 (LIC_5_TMC-6C)</b>	<b>5</b>							
49th Ave	5	EB	0	36	132	10	0	
49th Ave	5	WB	0	5	40	310	0	
21th Ave	5	NB	0	35	90	40	0	
21th Ave	5	SB	0	98	127	10	0	<b>933</b>

LIC

8:00:00 AM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			AM Peak Hour					
			L2	L	T	R	R2	Total
Borden Ave & 11th Street <b>2018 -- 2019 (LIC_7_TMC-6D)</b>	<b>7</b>							
Borden Ave	7	EB	0	578	50	18	0	
Borden Ave	7	WB	0	40	422	57	0	
11th St	7	NB	0	16	66	16	0	
11th St	7	SB	0	26	0	94	0	<b>1383</b>
Van Dam St & QMT Expwy (North) <b>2019 (TMC-004A)</b>	<b>8</b>							
QMT Expwy	8	EB	0	0	0	0	0	
QMT Expwy	8	WB	0	0	846	259	0	
Van Dam St	8	NB	0	22	297	0	0	
Van Dam St	8	SB	0	0	769	17	0	<b>2210</b>
Van Dam St & QMT Expwy (South) <b>2019 (TMC-004B)</b>	<b>888</b>							
QMT Expwy	888	EB	0	29	185	15	0	
QMT Expwy	888	WB	0	0	0	0	0	
Van Dam St	888	NB	0	0	290	5	0	
Van Dam St	888	SB	0	588	181	0	0	<b>1293</b>
Queens Blvd & Jackson Ave (Mainline) <b>2018 --&gt; 2019 (LIC_9A_TMC-6E)</b>	<b>9</b>							
Queens Blvd	9	EB	0	0	845	287	0	
Queens Blvd	9	WB	0	50	722	60	0	
Jackson Ave	9	NB	0	0	199	15	0	
Jackson Ave	9	SB	0	15	135	0	0	<b>2328</b>
Queens Blvd & Jackson Ave (Service Rd) <b>2018 --&gt; 2019 (LIC_9A_TMC-6E)</b>	<b>9A</b>							
Queens Blvd	9A	EB	0	0	35	355	0	
Queens Blvd	9A	WB	0	0	0	0	0	
Jackson Ave	9A	NB	0	0	0	0	0	
Jackson Ave	9A	SB	0	0	0	0	0	<b>390</b>
Thompson Ave & Queens Blvd <b>2018 --&gt; 2019 (LIC_10_TMC-6G)</b>	<b>10</b>							
Queens Blvd	10	EB	0	0	0	110	90	
Queens Blvd	10	WB	0	0	1030	0	0	
Thompson Ave	10	NB	0	44	266	0	25	
Thompson Ave	10	SB	0	0	446	15	0	<b>2026</b>

LIC

8:00:00 AM

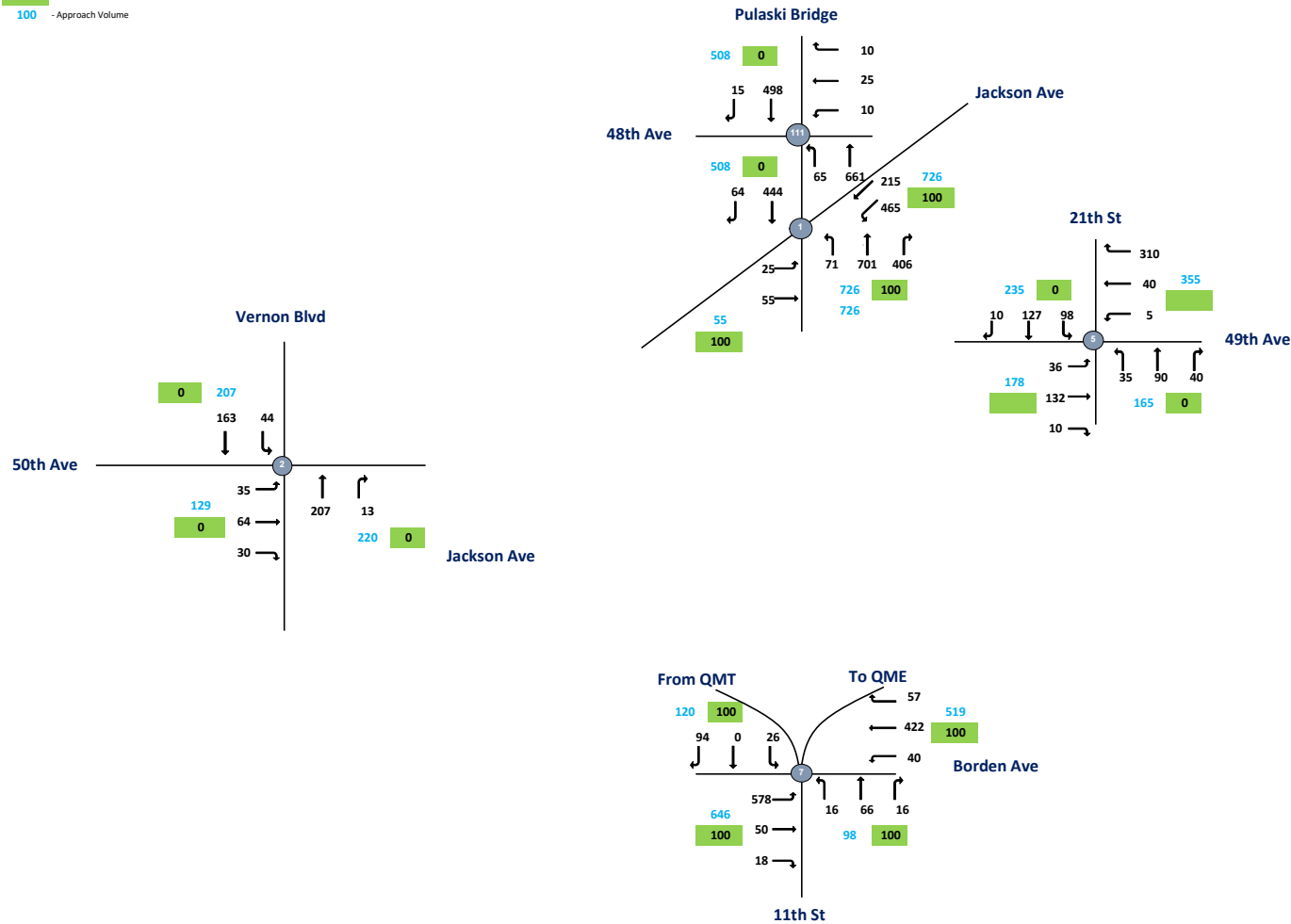
Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			AM Peak Hour					
			L2	L	T	R	R2	Total
Dutch Kills St & Thomson Ave (#1) <b>2019 (TMC-005)</b>	<b>11</b>							
Thomson Ave	11	EB	0	0	388	0	0	
Thomson Ave	11	WB	0	0	385	896	0	
Dutch Kills St	11	NB	0	0	0	0	0	
Dutch Kills St	11	SB	0	0	0	0	0	<b>1669</b>
Dutch Kills St & Thomson Ave (#2) <b>2019 (TMC-005)</b>	<b>1111</b>							
Thomson Ave	1111	EB	0	0	388	0	0	
Thomson Ave	1111	WB	0	0	1281	721	0	
Dutch Kills St	1111	NB	0	0	0	0	0	
Dutch Kills St	1111	SB	0	0	0	0	0	<b>2390</b>
21st Street & Queens Plaza North <b>2019 (TMC-006)</b>	<b>12</b>							
Queens Plaza North	12	EB	0	0	0	0	0	
Queens Plaza North	12	WB	0	120	66	82	0	
21st Street	12	NB	0	0	356	0	0	
21st Street	12	SB	0	0	951	350	0	<b>1925</b>



**CBD Tolling**  
**LIC - Traffic Flowmap #1**  
**AM With Action**

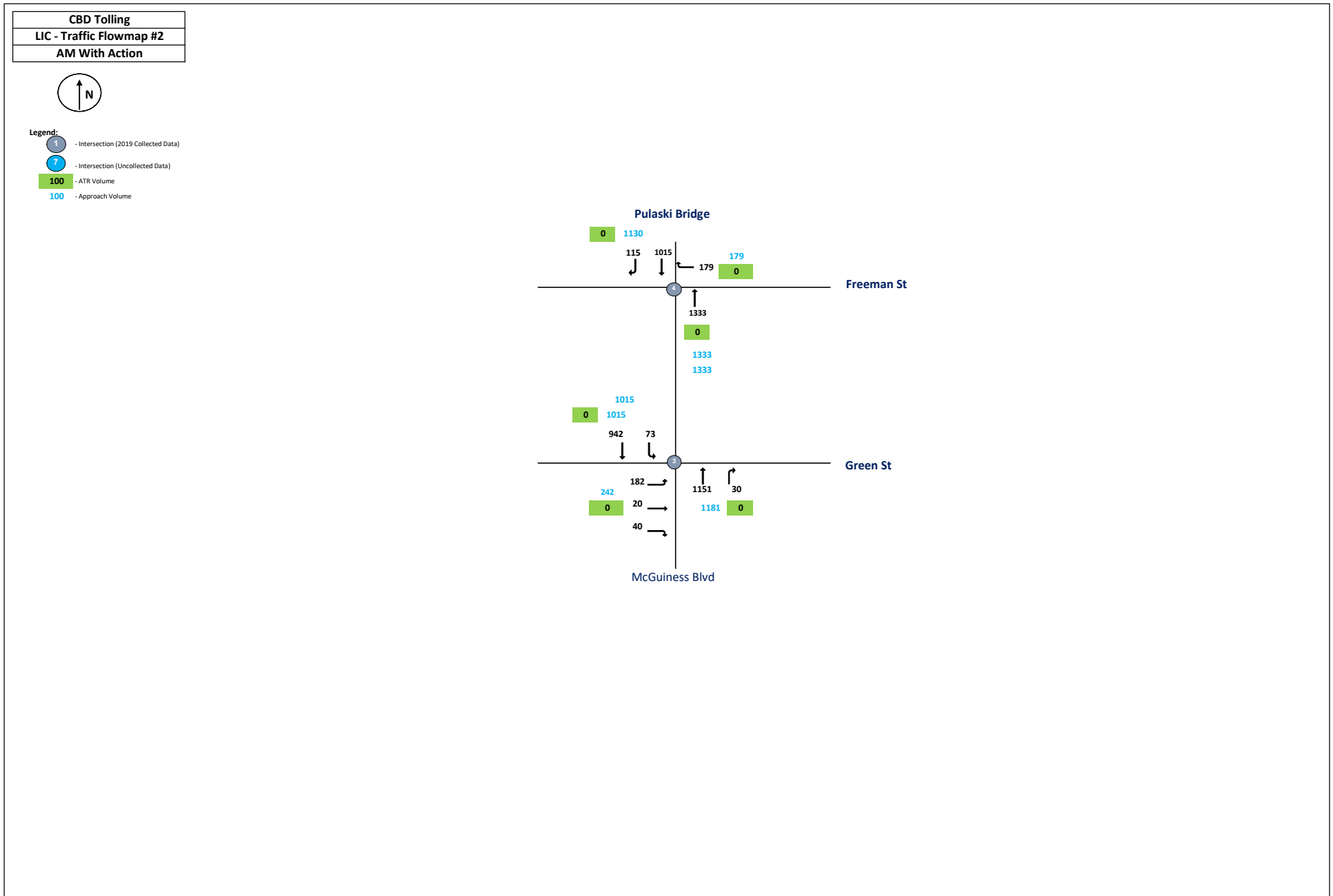


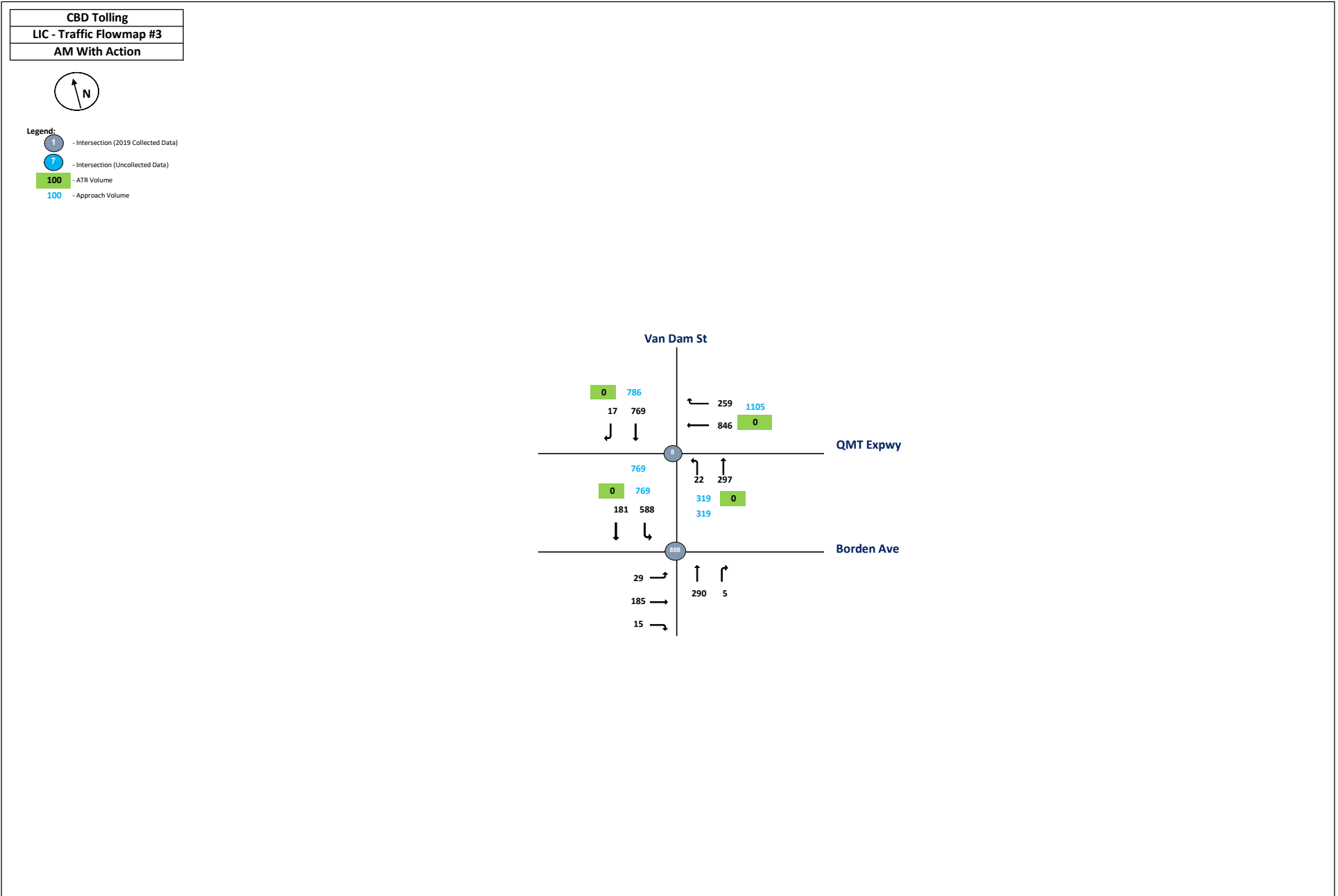
**Legend:**  
 1 - Intersection (2019 Collected Data)  
 7 - Intersection (Uncollected Data)  
 100 - ATR Volume  
 100 - Approach Volume

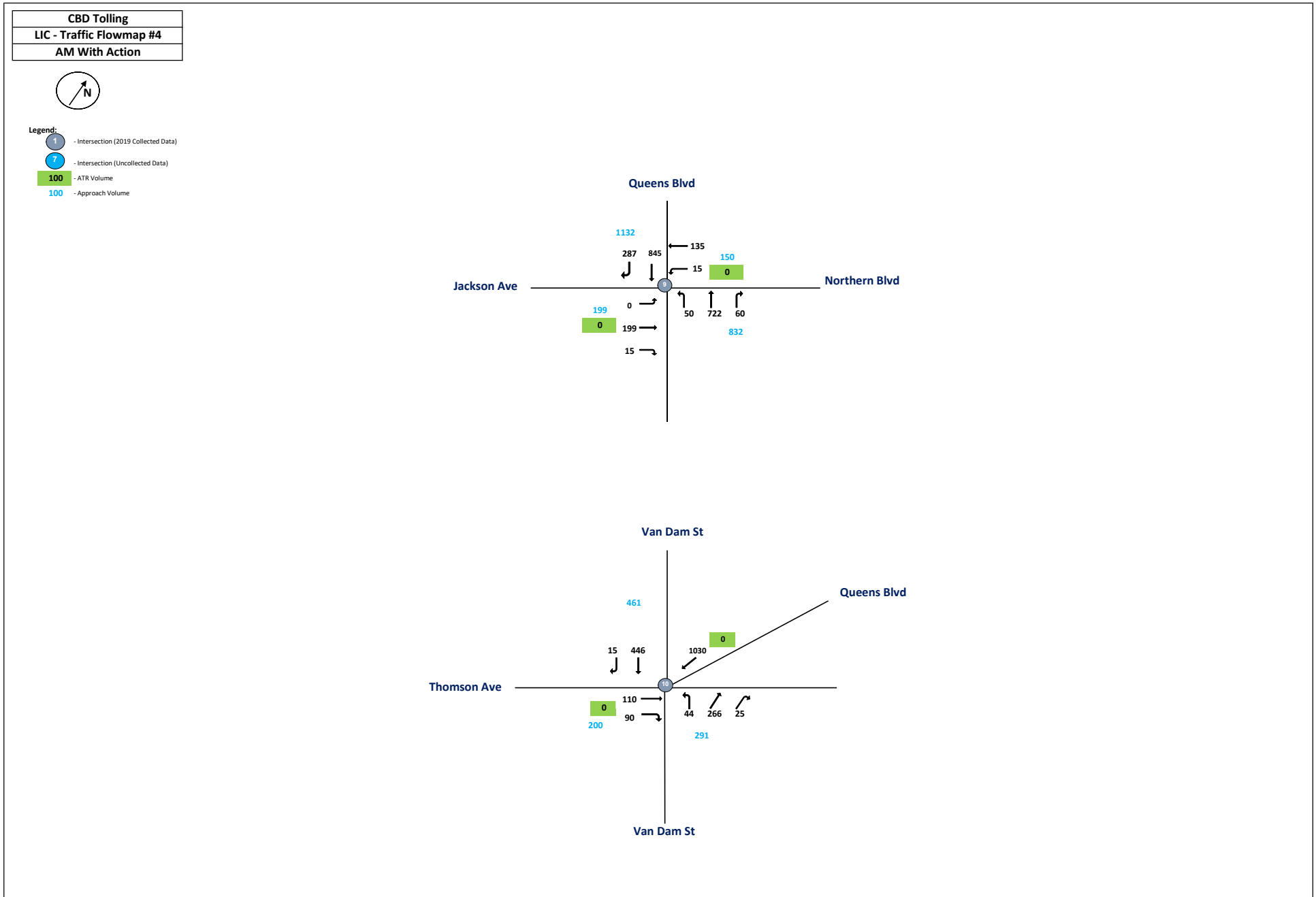


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DOT\_0046603







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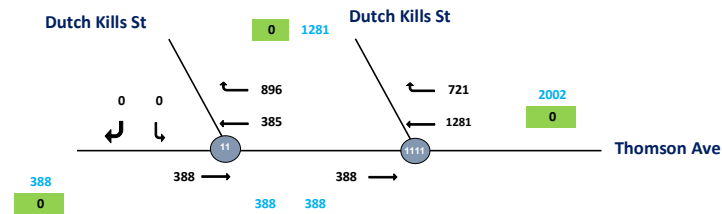
DOT\_0046606

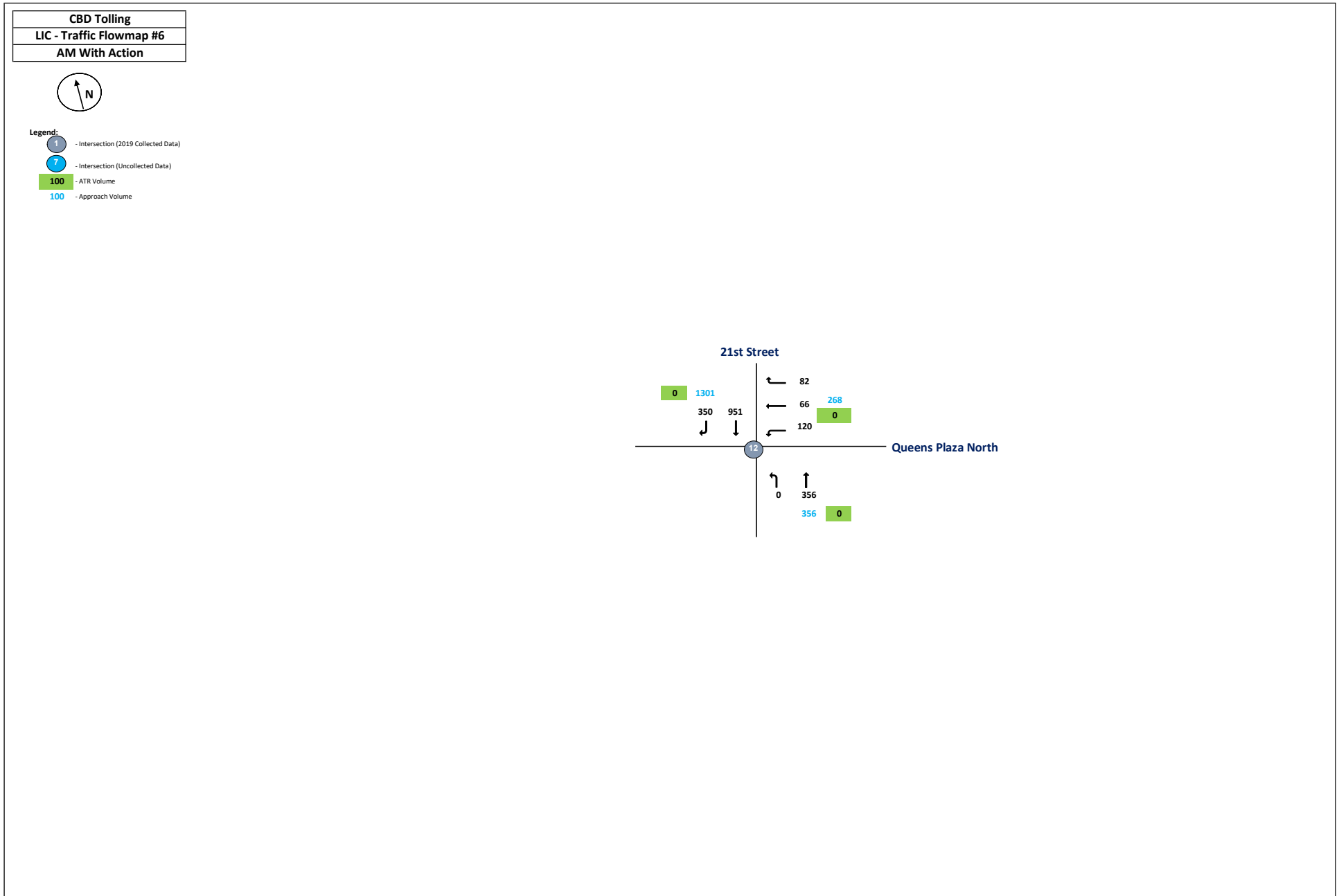
<b>CBD Tolling</b>
<b>LIC - Traffic Flowmap #5</b>
<b>AM With Action</b>



Legend:

- 1 - Intersection (2019 Collected Data)
- 7 - Intersection (Uncollected Data)
- 100 - ATR Volume
- 100 - Approach Volume





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DOT\_0046608

LM

8:00:00 AM

Intersection	Node	Approach	Total Vehicles						
			Inbound/Outbound						
			AM Peak Hour						
			L2	L	T	R	R2	Total	
Edgar St. and Trinity Pl. 2019 (TMC-010)	1								
Edgar St.	1	EB	0	35	0	0	0		
478 Exit Ramp.	1	NE	0	0	0	0	0		
Trinity Pl.	1	NB	0	0	42	0	0		
Trinity Pl.	1	SB	0	0	0	0	0	77	
Rector St. and Trinity Pl. 2019 (TMC-011)	2								
Rector St.	2	EB	0	100	34	0	0		
Rector St.	2	WB	0	0	0	0	0		
Trinity Pl.	2	NB	0	0	70	7	0		
Trinity Pl.	2	SB	0	0	0	0	0	211	
West St. and HCT Exit. 2019 (TMC-012)	3								
-	3	EB	0	0	0	0	0		
HCT Exit.	3	WB	0	1692	0	0	0		
West St.	3	NB	0	0	1024	0	444		
West St.	3	SB	0	0	1005	0	0	4165	
West St. and HCT Exit. 2019 (TMC-012)	333								
W. Thams St.	333	EB	0	0	0	0	0		
HCT Exit.	333	WB	0	0	0	1239	0		
West St.	333	NB	0	0	1024	0	0		
West St.	333	SB	0	0	1005	0	0	3268	
Chambers St. and Centre St. 2018	4								
Chambers St.	4	EB	0	0	0	393	0		
-	4	WB	0	0	0	0	0		
Centre St.	4	NB	0	396	457	0	0		
Centre St.	4	SB	0	0	213	27	0	1486	
Hudson St. and Canal St. 2018	5								
Canal St.	5	EB	49	335	555	0	0		
Canal St.	5	WB	0	0	337	73	0		
Hudson St.	5	NB	0	105	670	150	45		
Hudson St.	5	SB	0	0	0	0	0	2319	

LM

8:00:00 AM

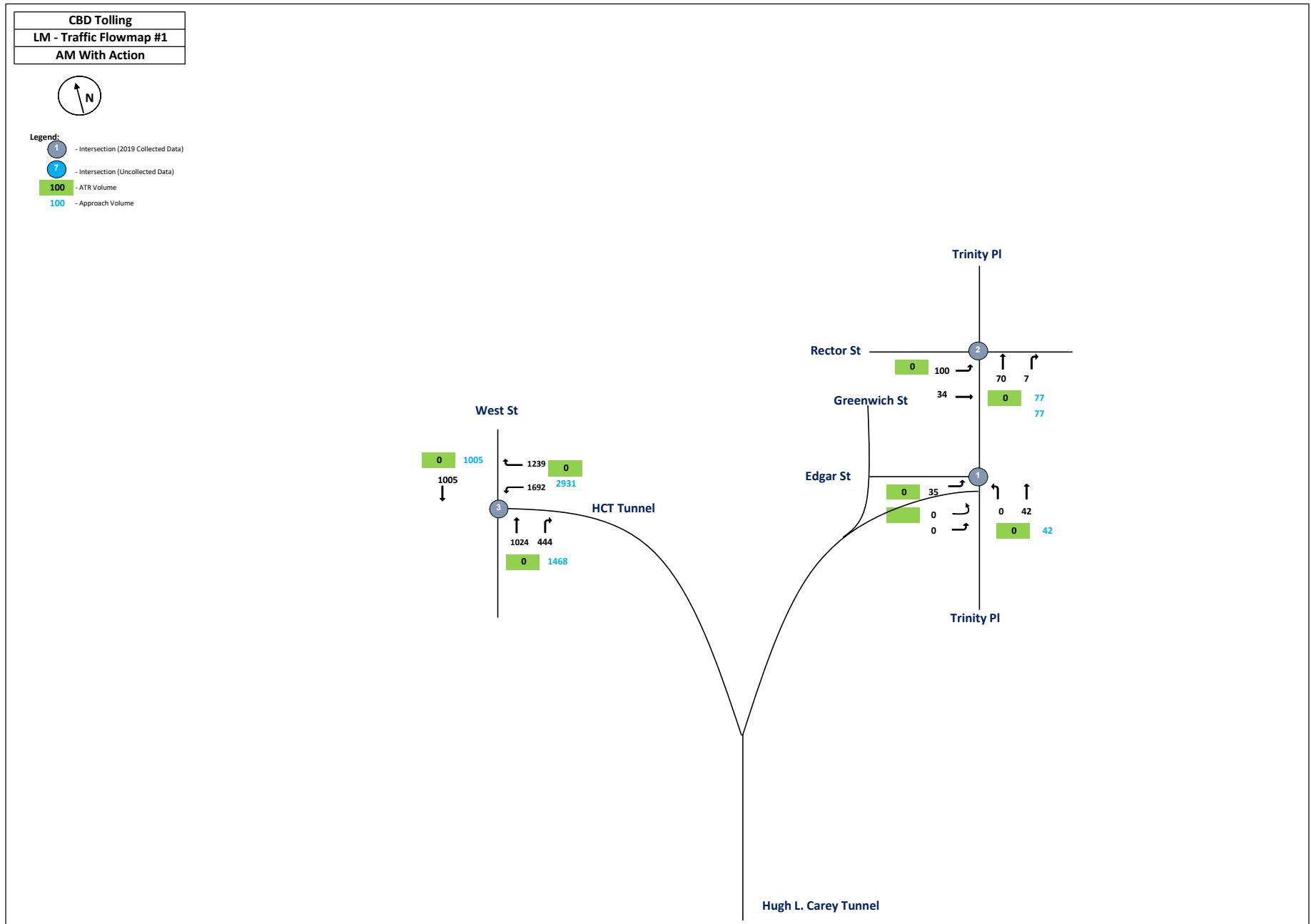
Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			AM Peak Hour					
			L2	L	T	R	R2	Total
<b>Hudson St. and Canal St.</b>								
<b>2018</b>	<b>555</b>							
Canal St.	555	EB	0	0	600	0	0	
Canal St.	555	WB	0	0	410	880	0	
Hudson St.	555	NB	0	0	0	0	0	
Hudson St.	555	SB	0	0	0	0	0	<b>1890</b>
<b>West St. and Canal St N.</b>								
<b>2018</b>	<b>7</b>							
Canal St N.	7	EB	0	0	0	0	0	
-	7	WB	0	0	0	0	0	
West St.	7	NB	0	0	2659	277	0	
West St.	7	SB	0	675	2105	0	0	<b>5716</b>
<b>West St. and Canal St S.</b>								
<b>2018</b>	<b>777</b>							
-	777	EB	0	0	0	0	0	
Canal St S.	777	WB	0	0	0	0	0	
West St.	777	NB	0	0	2659	0	0	
West St.	777	SB	0	0	2780	0	0	<b>5439</b>
<b>West St. and Albany St.</b>								
<b>2019 (TMC-013)</b>	<b>9</b>							
Albany St.	9	EB	0	134	90	64	0	
-	9	WB	0	0	0	0	0	
West St.	9	NB	0	0	2217	92	0	
West St.	9	SB	0	5	1657	136	0	<b>4395</b>
<b>West St. and Vesey St.</b>								
<b>2019 (TMC-014)</b>	<b>10</b>							
Vesey St.	10	EB	0	104	0	79	0	
Vesey St.	10	WB	0	0	0	0	0	
West St.	10	NB	0	5	2232	0	0	
West St.	10	SB	0	0	1857	321	0	<b>77</b>
<b>West St. and Chambers St.</b>								
<b>2019 (TMC-015)</b>	<b>11</b>							
Chambers St.	11	EB	0	103	30	15	0	
Chambers St.	11	WB	0	69	60	305	0	
West St.	11	NB	0	0	2240	63	0	
West St.	11	SB	0	222	1775	48	0	<b>4930</b>

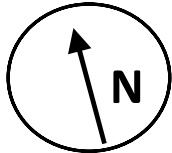


LM

8:00:00 AM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			AM Peak Hour					
			L2	L	T	R	R2	Total
<b>Bowey and Canal St./Manhattan Bridge Off-Ramp</b>								
<b>2018</b>	<b>14</b>							
Canal St.	14	EB	0	0	709	103	0	
Manhattan Bridge Off-Ramp	14	WB	0	0	989	0	0	
Bowey	14	NB	0	0	289	284	0	
Bowey	14	SB	0	240	136	74	0	<b>2824</b>
<b>Bowey and Manhattan Bridge Off-Ramp</b>								
<b>2018</b>	<b>15</b>							
	15	EB	0	0	0	0	0	
Manhattan Bridge Off-Ramp	15	WB	0	0	0	377	0	
Bowey	15	NB	0	0	289	0	0	
Bowey	15	SB	0	0	450	0	0	<b>1116</b>
<b>6th Ave. and Watts St</b>								
<b>2018</b>	<b>18</b>							
Watts St	18	EB	0	0	0	0	0	
Watts St	18	WB	0	0	718	25	0	
6th Ave.	18	NB	0	72	901	0	0	
6th Ave.	18	SB	0	0	0	0	0	<b>1716</b>
<b>6th Ave. and Canal St.</b>								
<b>2018</b>	<b>19</b>							
Canal St.	19	EB	0	0	617	0	0	
Canal St.	19	WB	0	0	1148	250	0	
6th Ave.	19	NB	0	157	650	4	0	
Laight St.	19	NE	0	0	0	568	0	<b>3394</b>



**CBD Tolling****LM - Traffic Flowmap #2****AM With Action****Legend:****1**

- Intersection (2019 Collected Data)

**7**

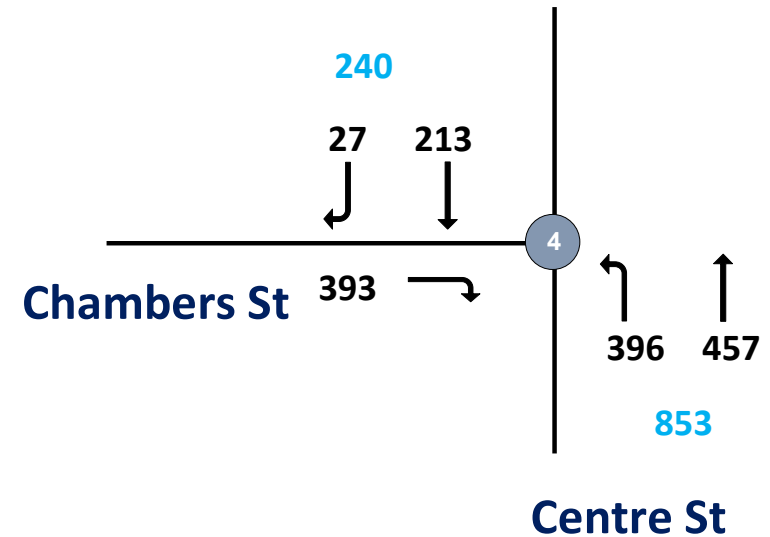
- Intersection (Uncollected Data)

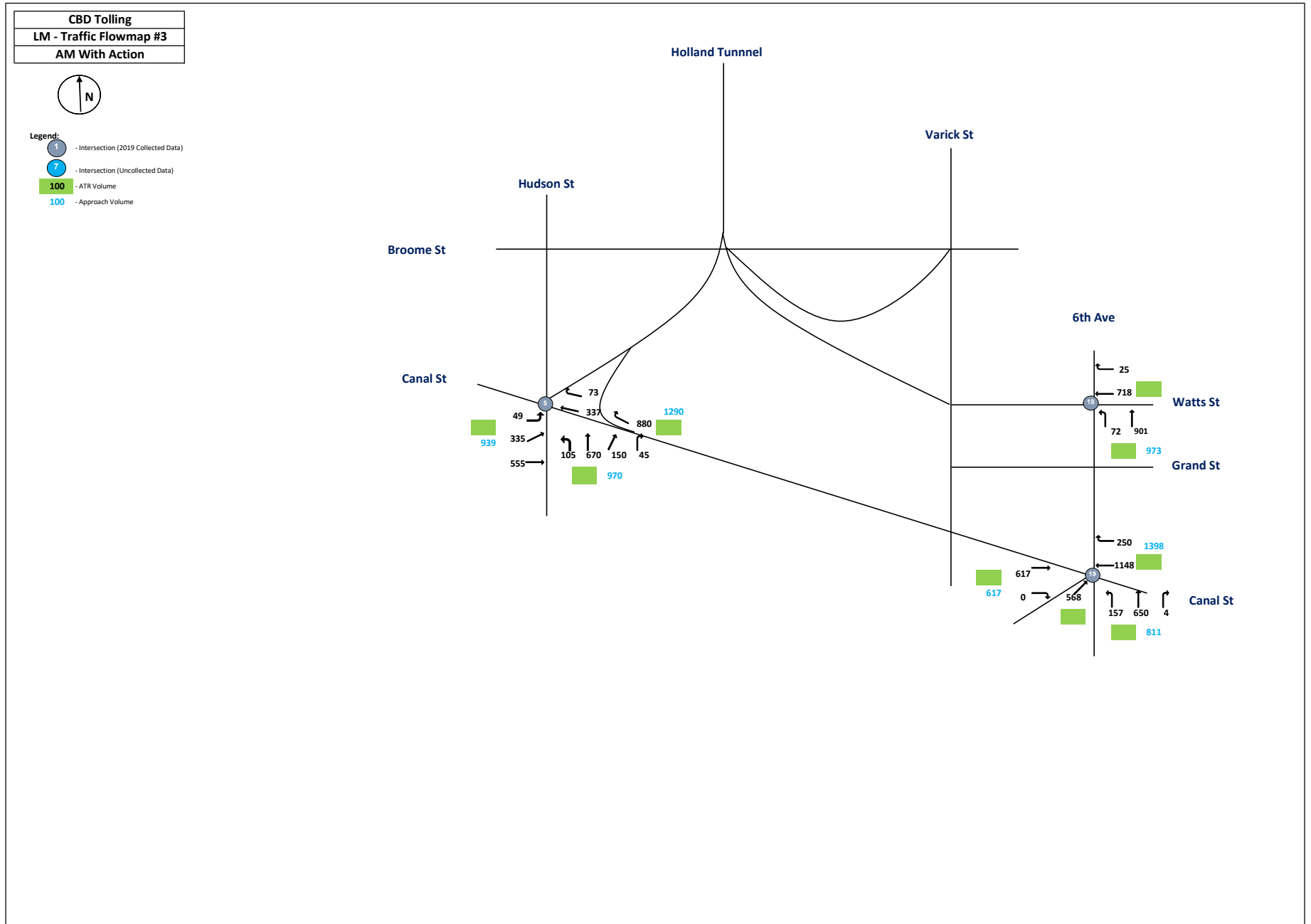
**100**

- ATR Volume

**100**

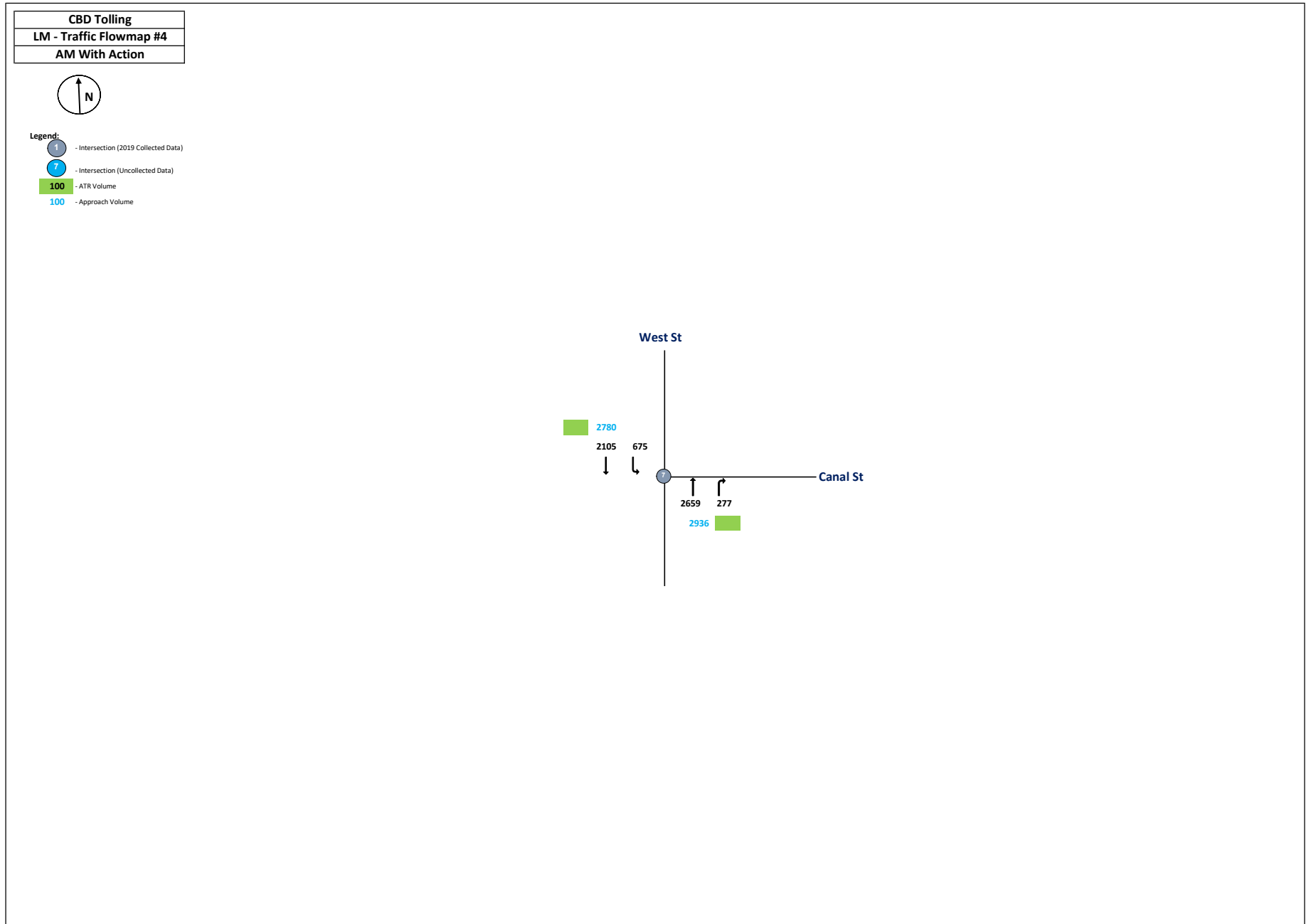
- Approach Volume

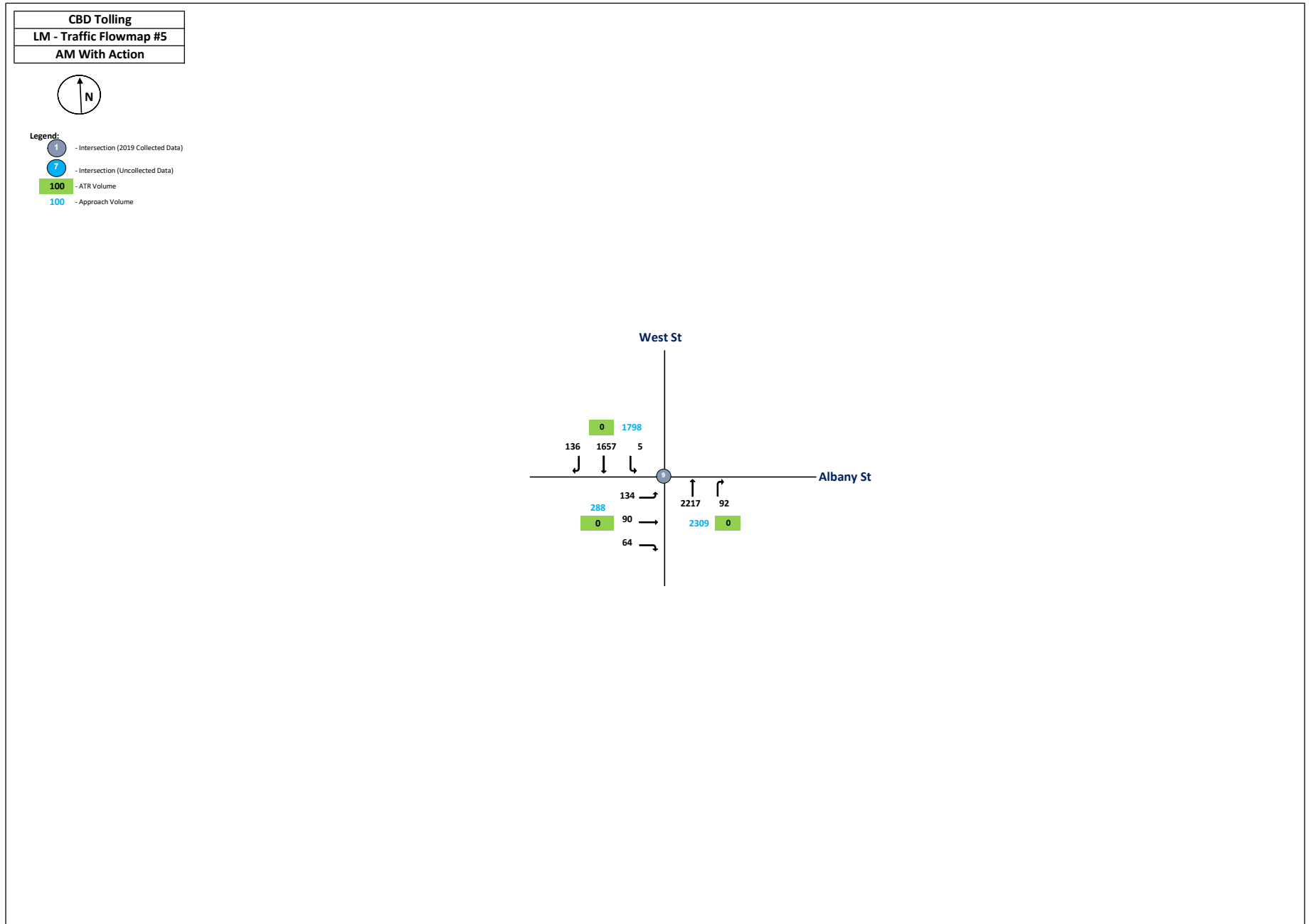




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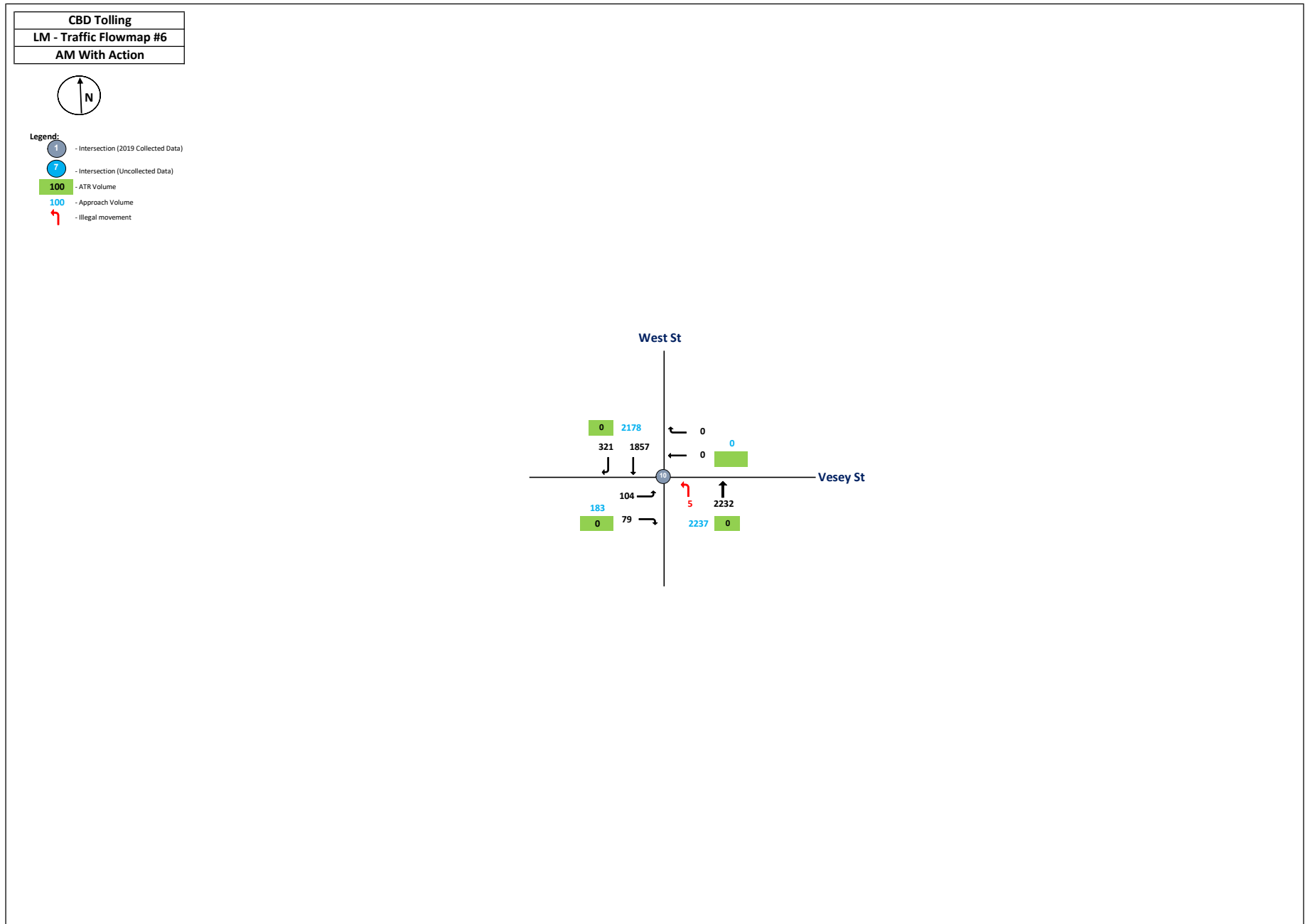
DOT\_0046614

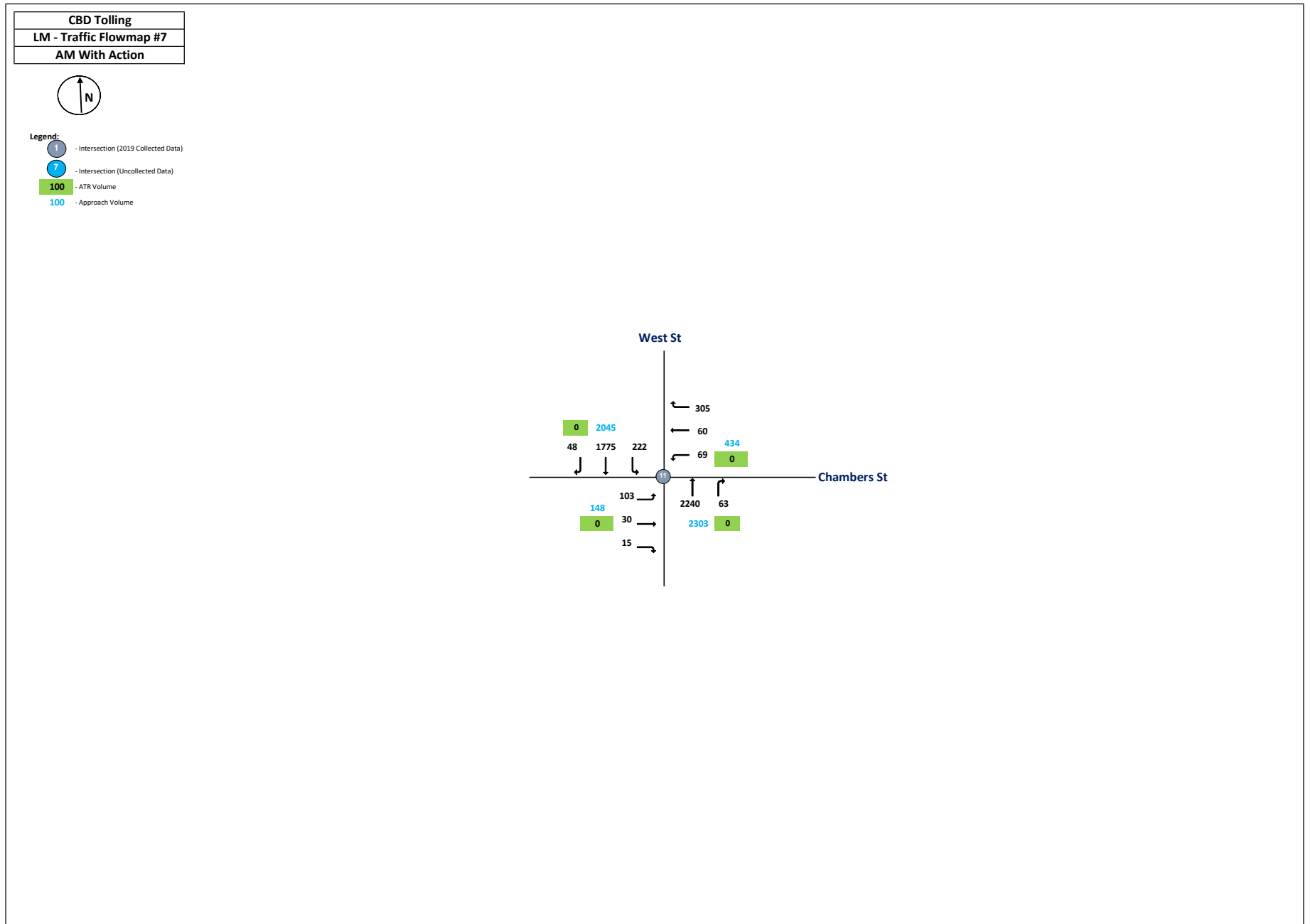




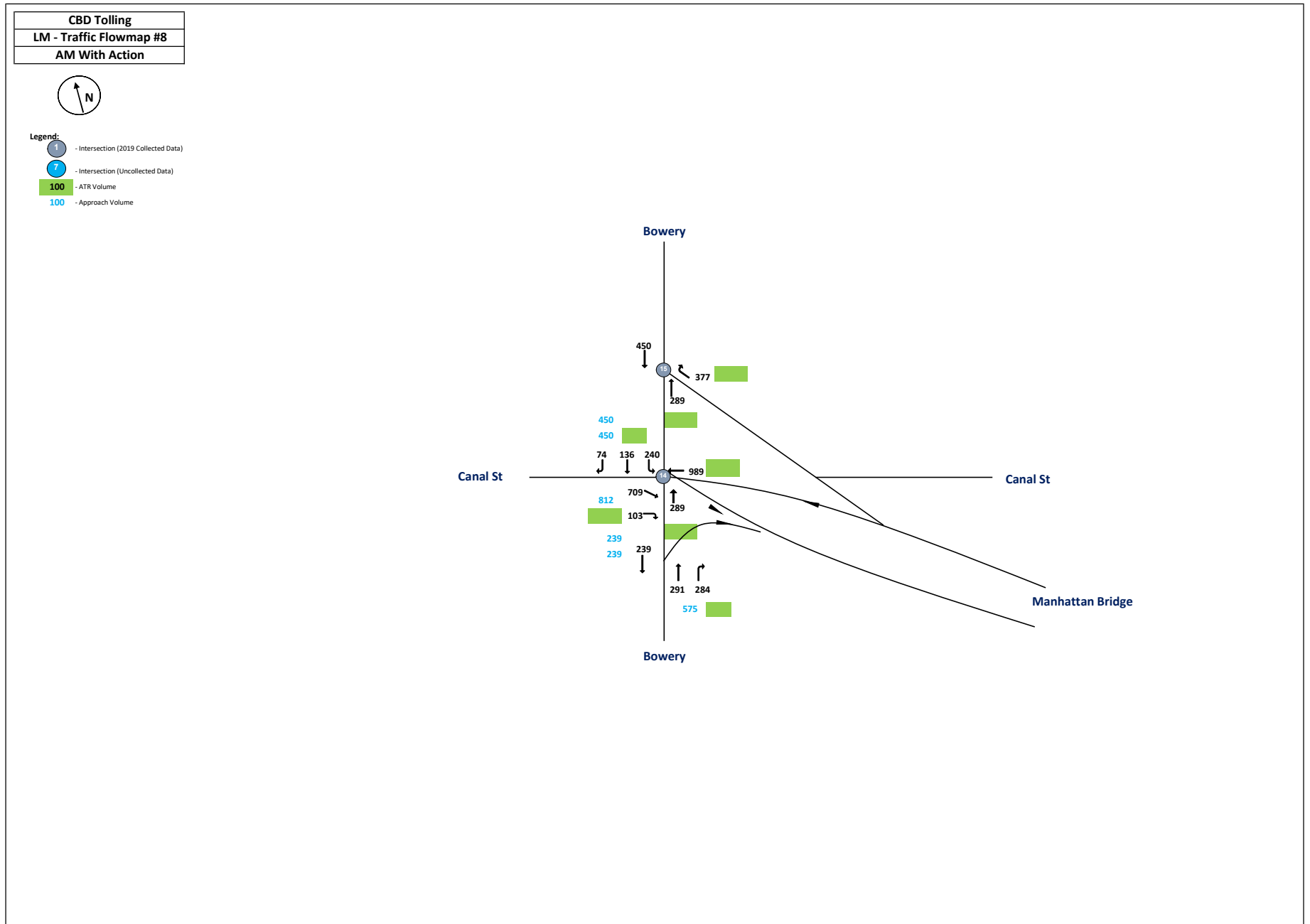
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DOT\_0046616









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DOT\_0046619

LM

1:00:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			MD Peak Hour					
			L2	L	T	R	R2	Total
<b>Edgar St. and Trinity Pl.</b> <b>2019 (TMC-010)</b>	<b>1</b>							
Edgar St.	1	EB	0	291	0	0	0	
478 Exit Ramp.	1	NE	0	0	0	0	0	
Trinity Pl.	1	NB	0	4	34	0	0	
Trinity Pl.	1	SB	0	0	0	0	0	<b>329</b>
<b>Rector St. and Trinity Pl.</b> <b>2019 (TMC-011)</b>	<b>2</b>							
Rector St.	2	EB	0	109	44	0	0	
Rector St.	2	WB	0	0	0	0	0	
Trinity Pl.	2	NB	0	0	264	61	0	
Trinity Pl.	2	SB	0	0	0	0	0	<b>478</b>
<b>West St. and HCT Exit.</b> <b>2019 (TMC-012)</b>	<b>3</b>							
-	3	EB	0	0	0	0	0	
HCT Exit.	3	WB	0	860	0	0	0	
West St.	3	NB	0	0	976	0	787	
West St.	3	SB	0	0	1330	0	0	<b>3953</b>
<b>West St. and HCT Exit.</b> <b>2019 (TMC-012)</b>	<b>333</b>							
W. Thams St.	333	EB	0	0	0	0	0	
HCT Exit.	333	WB	0	0	0	852	0	
West St.	333	NB	0	0	976	0	0	
West St.	333	SB	0	0	1330	0	0	<b>3158</b>
<b>Chambers St. and Centre St.</b> <b>2018</b>	<b>4</b>							
Chambers St.	4	EB	0	0	0	398	0	
-	4	WB	0	0	0	0	0	
Centre St.	4	NB	0	289	364	0	0	
Centre St.	4	SB	0	0	201	13	0	<b>1265</b>
<b>Hudson St. and Canal St.</b> <b>2018</b>	<b>5</b>							
Canal St.	5	EB	30	206	315	0	0	
Canal St.	5	WB	0	0	163	27	0	
Hudson St.	5	NB	0	75	515	214	55	
Hudson St.	5	SB	0	0	0	0	0	<b>1600</b>

LM

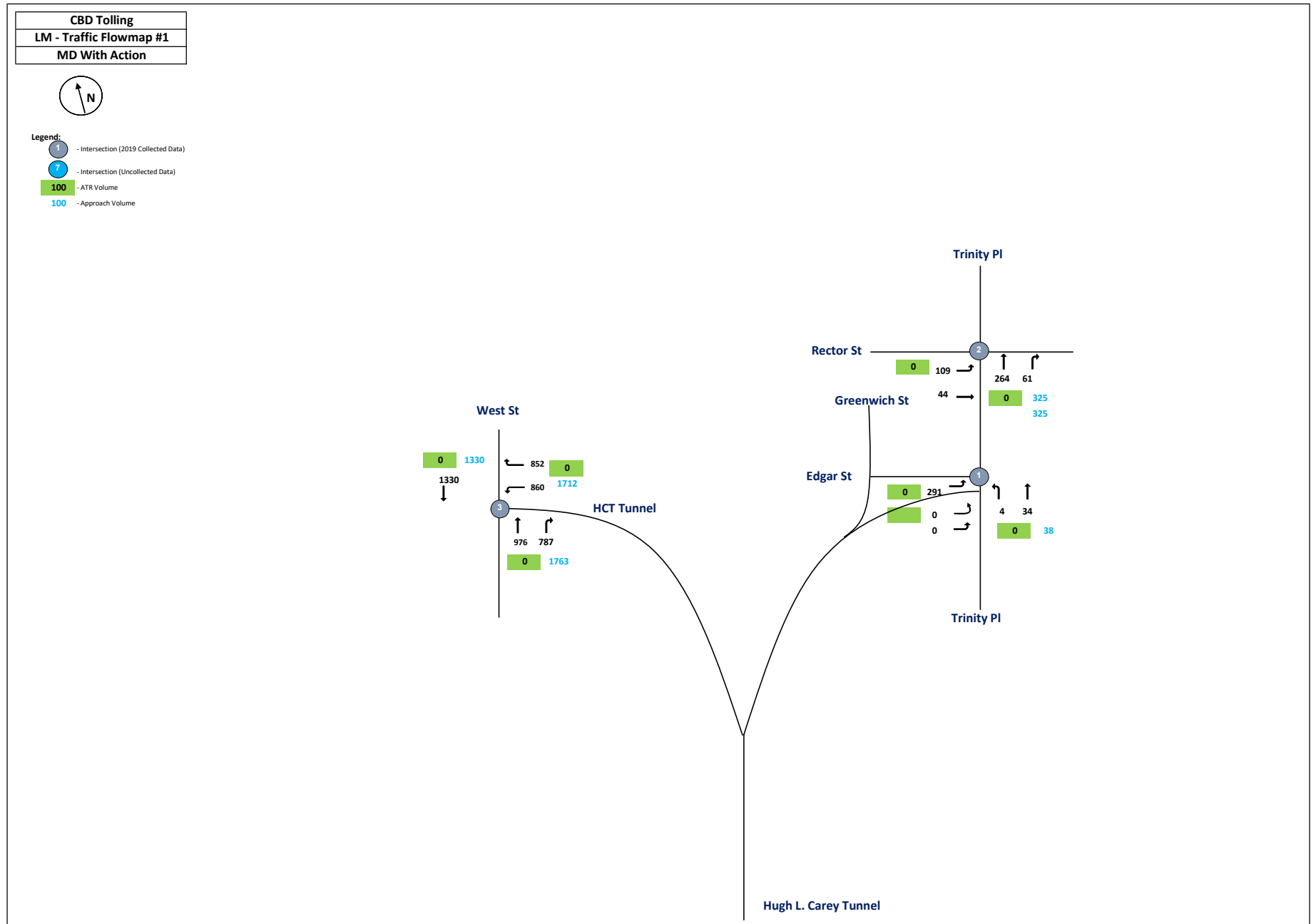
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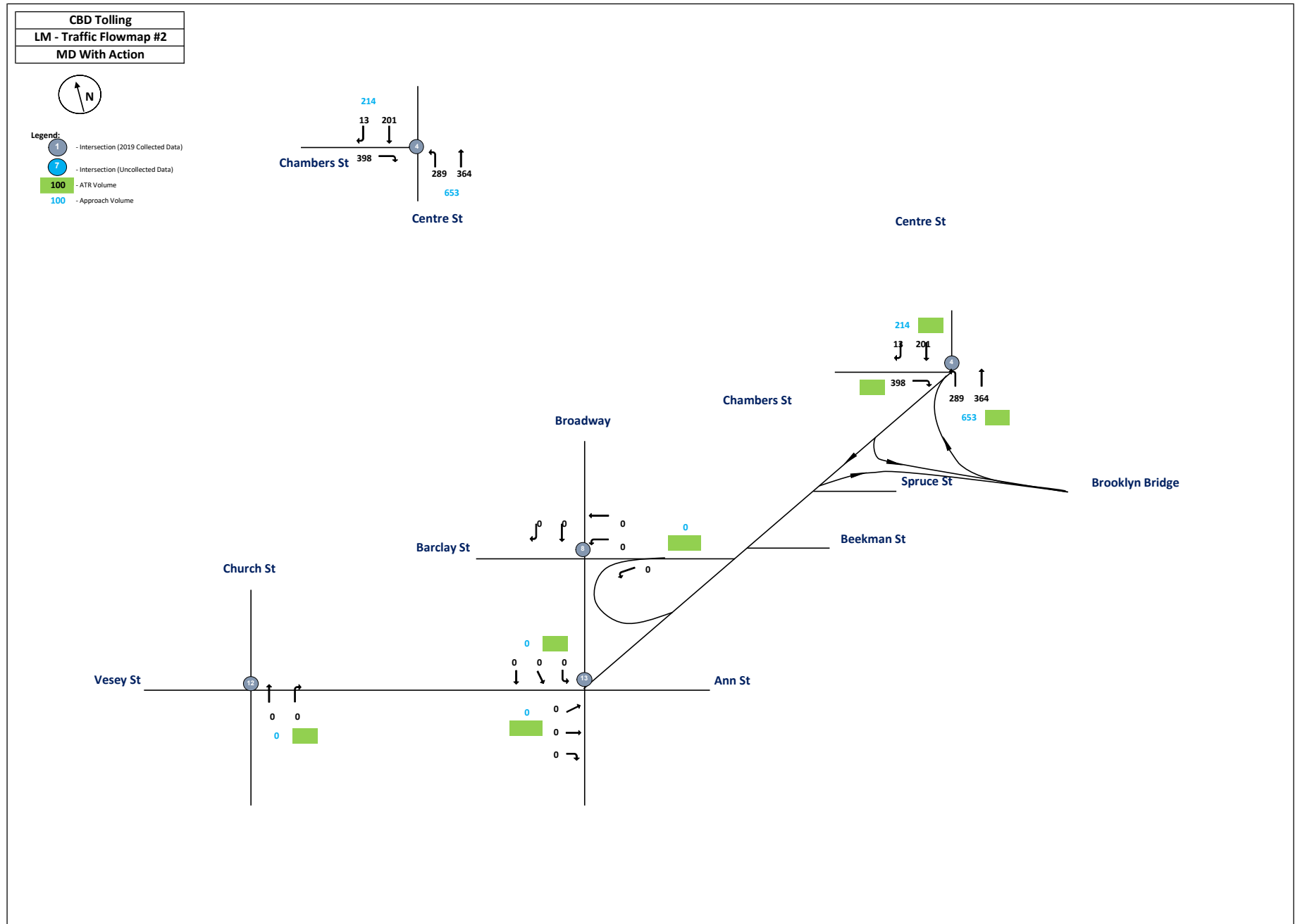
Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			MD Peak Hour					
			L2	L	T	R	R2	Total
<b>Hudson St. and Canal St.</b>								
<b>2018</b>	<b>555</b>							
Canal St.	555	EB	0	0	370	0	0	
Canal St.	555	WB	0	0	190	605	0	
Hudson St.	555	NB	0	0	0	0	0	
Hudson St.	555	SB	0	0	0	0	0	<b>1165</b>
<b>West St. and Canal St N.</b>								
<b>2018</b>	<b>7</b>							
Canal St N.	7	EB	0	0	0	0	0	
-	7	WB	0	0	0	0	0	
West St.	7	NB	0	0	2100	141	0	
West St.	7	SB	0	349	1835	0	0	<b>4425</b>
<b>West St. and Canal St S.</b>								
<b>2018</b>	<b>777</b>							
-	777	EB	0	0	0	0	0	
Canal St S.	777	WB	0	0	0	0	0	
West St.	777	NB	0	0	2100	0	0	
West St.	777	SB	0	0	2184	0	0	<b>4284</b>
<b>West St. and Albany St.</b>								
<b>2019 (TMC-013)</b>	<b>9</b>							
Albany St.	9	EB	0	101	95	63	0	
-	9	WB	0	0	0	0	0	
West St.	9	NB	0	0	1474	85	0	
West St.	9	SB	0	5	2126	86	0	<b>4035</b>
<b>West St. and Vesey St.</b>								
<b>2019 (TMC-014)</b>	<b>10</b>							
Vesey St.	10	EB	0	139	0	151	0	
Vesey St.	10	WB	0	0	0	0	0	
West St.	10	NB	0	10	1841	0	0	
West St.	10	SB	0	0	2117	164	0	<b>329</b>
<b>West St. and Chambers St.</b>								
<b>2019 (TMC-015)</b>	<b>11</b>							
Chambers St.	11	EB	0	43	0	10	0	
Chambers St.	11	WB	0	73	65	272	0	
West St.	11	NB	0	0	1868	43	0	
West St.	11	SB	0	171	2002	81	0	<b>4628</b>

LM

1:00:00 PM

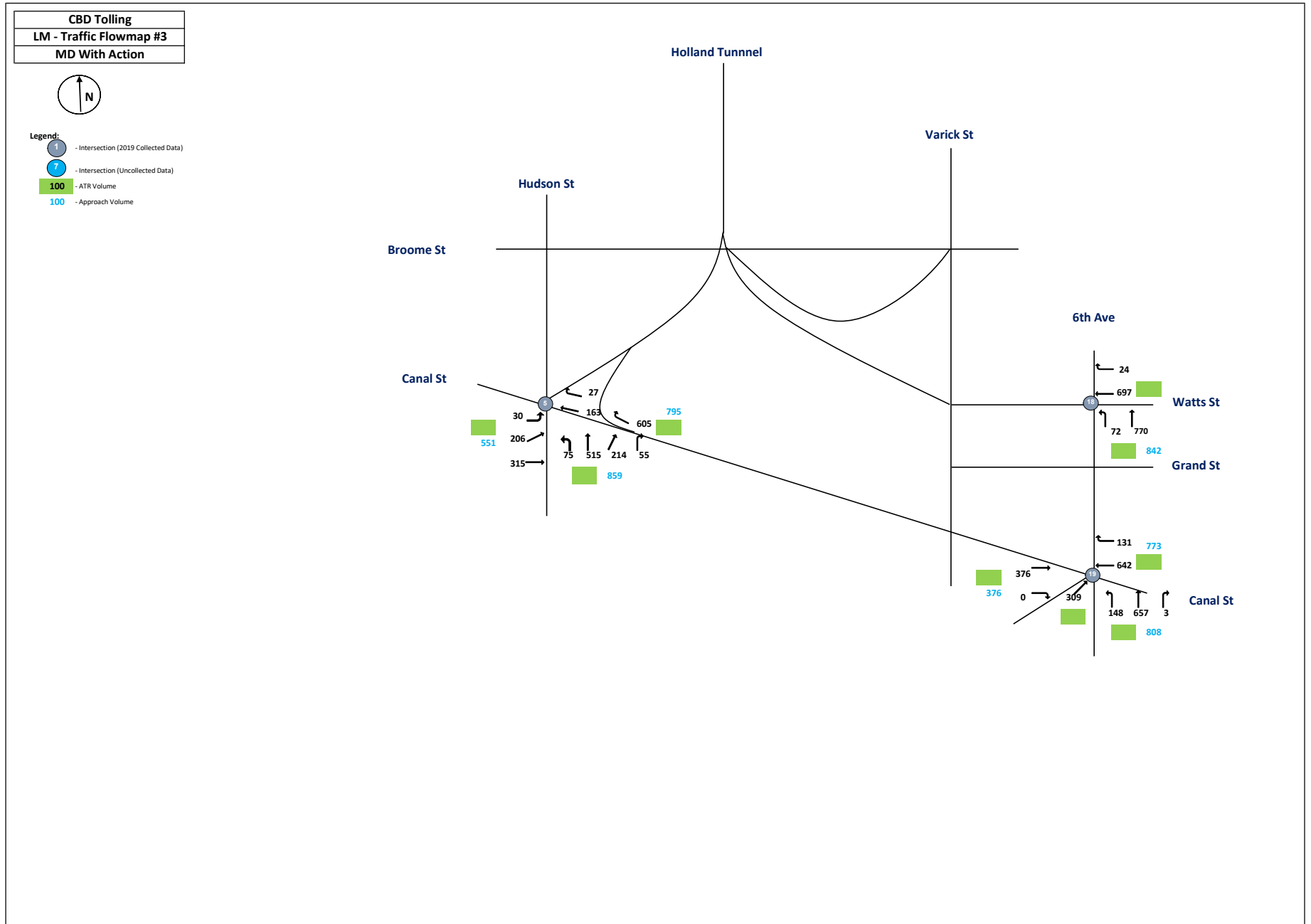
Intersection	Node	Approach	Total Vehicles										
			Inbound/Outbound										
			MD Peak Hour										
			L2	L	T	R	R2	Total					
Bowey and Canal St./Manhattan Bridge Off-Ramp													
2018	14												
Canal St.	14	EB							0	0	435	123	0
Manhattan Bridge Off-Ramp	14	WB							0	0	554	0	0
Bowey	14	NB							0	0	255	293	0
Bowey	14	SB	0	224	116	65	0	2065					
Bowey and Manhattan Bridge Off-Ramp													
2018	15												
	15	EB							0	0	0	0	0
Manhattan Bridge Off-Ramp	15	WB							0	0	0	143	0
Bowey	15	NB							0	0	253	0	0
Bowey	15	SB	0	0	405	0	0	801					
6th Ave. and Watts St													
2018	18												
Watts St	18	EB							0	0	0	0	0
Watts St	18	WB							0	0	697	24	0
6th Ave.	18	NB							0	72	770	0	0
6th Ave.	18	SB	0	0	0	0	0	1563					
6th Ave. and Canal St.													
2018	19												
Canal St.	19	EB							0	0	376	0	0
Canal St.	19	WB							0	0	642	131	0
6th Ave.	19	NB							0	148	657	3	0
Laight St.	19	NE	0	0	0	309	0	2266					





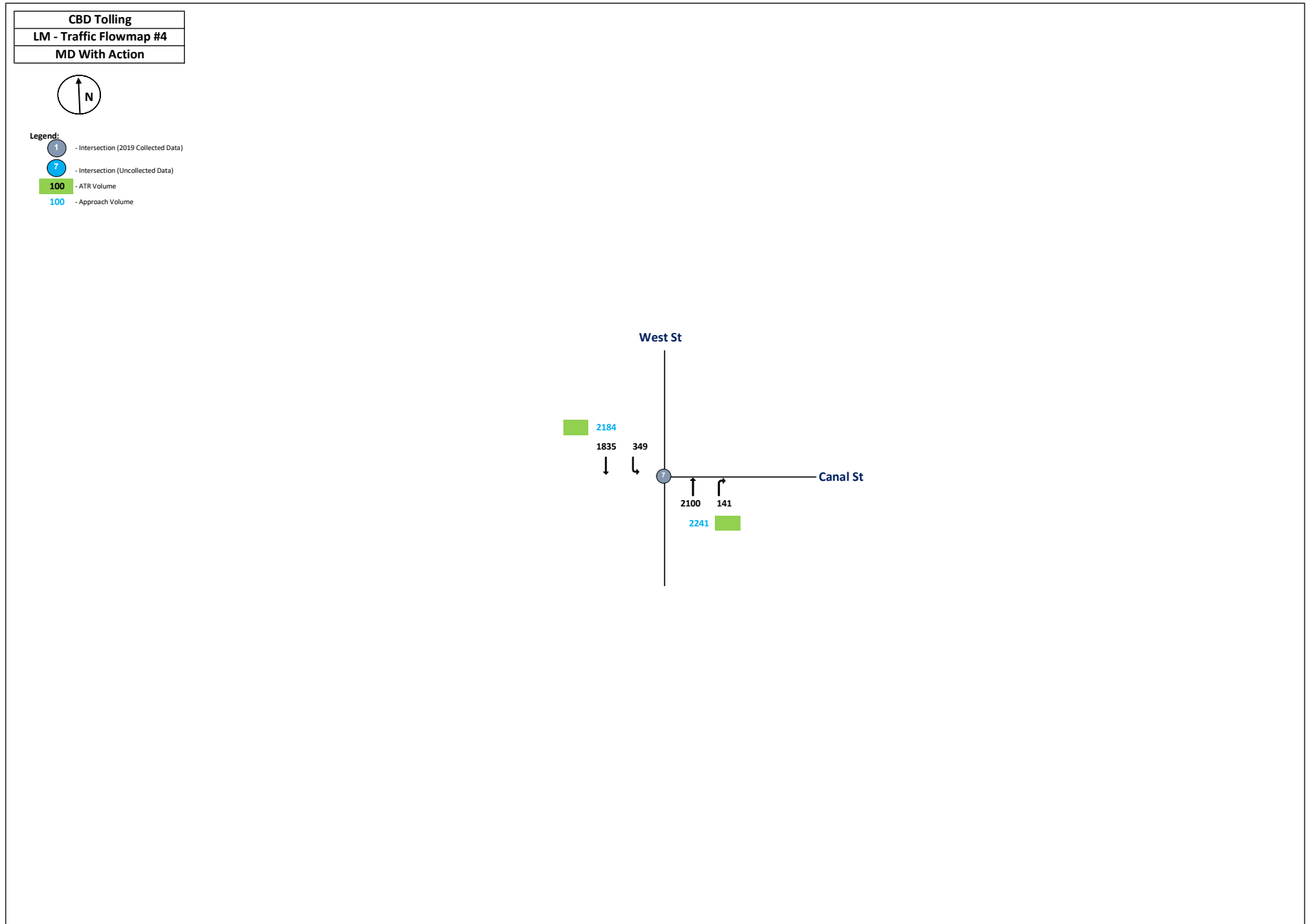
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DOT\_0046624

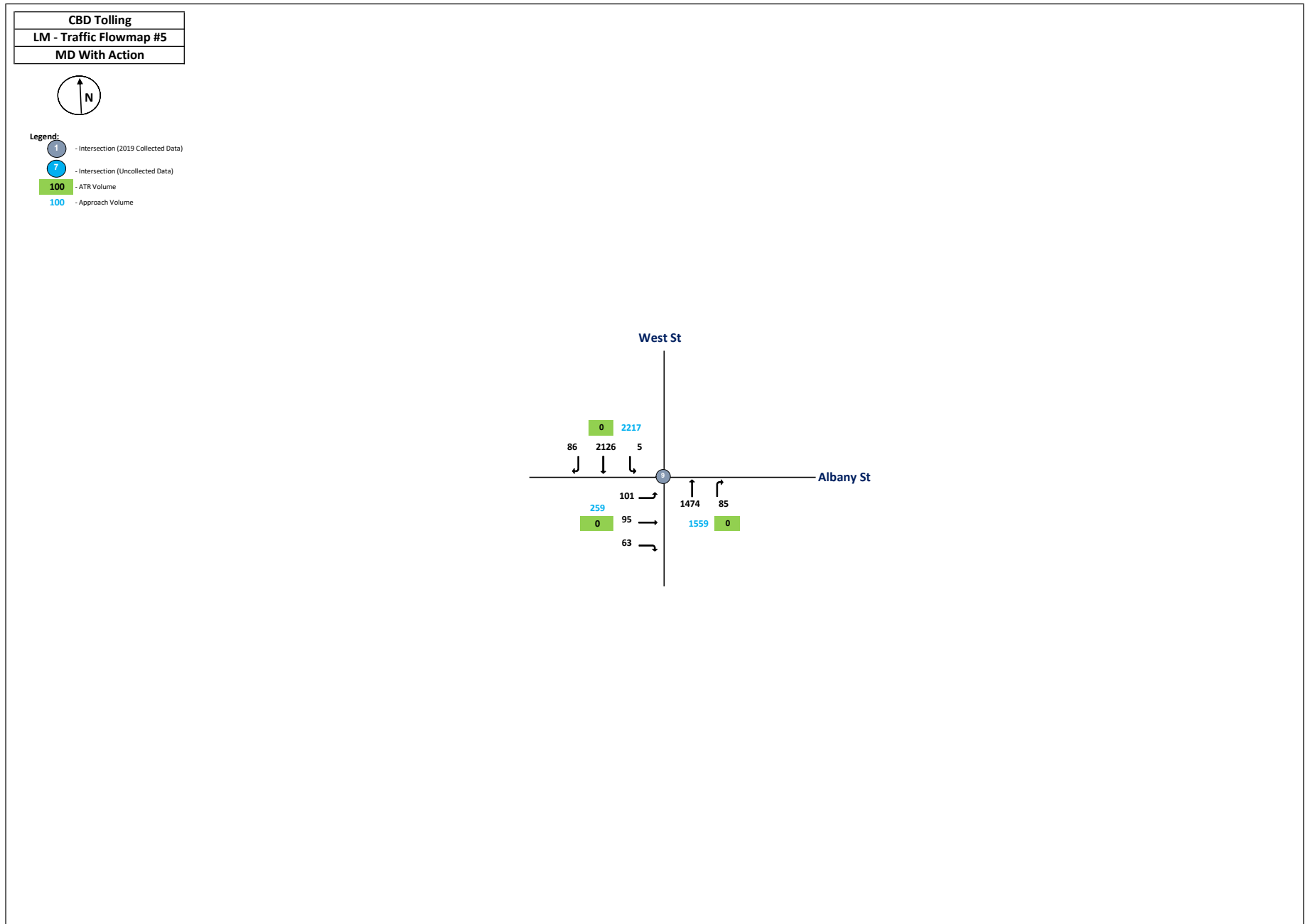


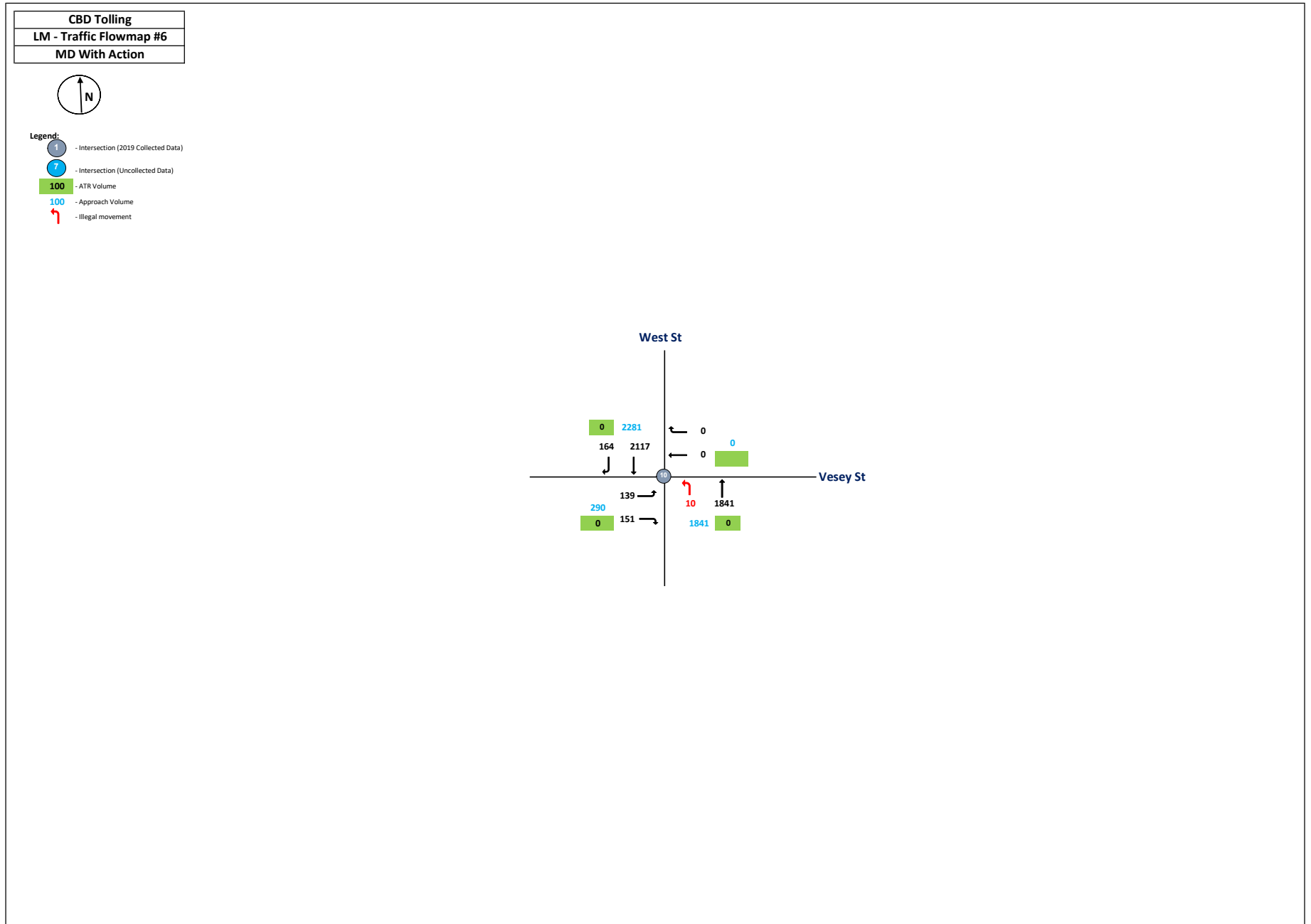
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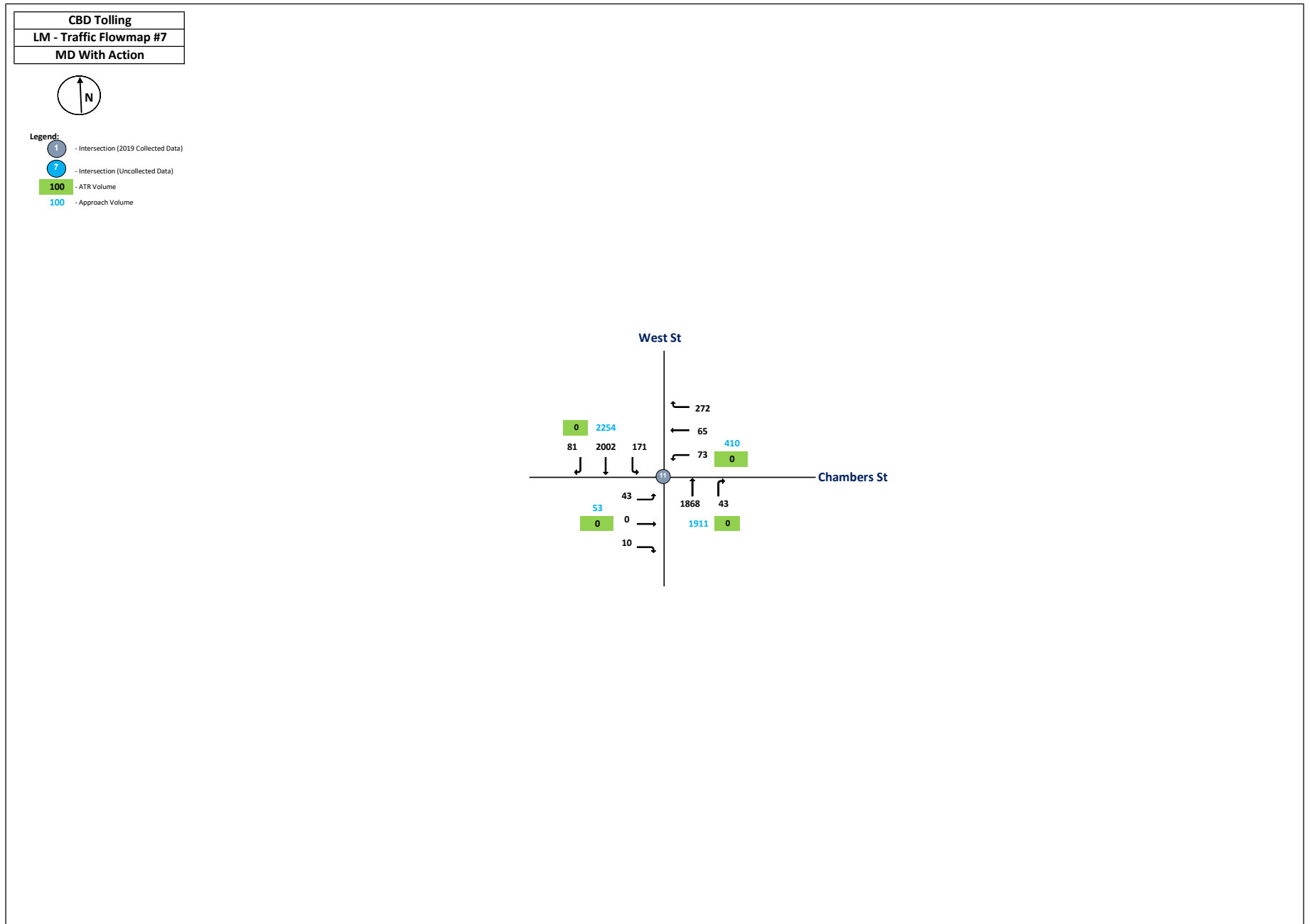
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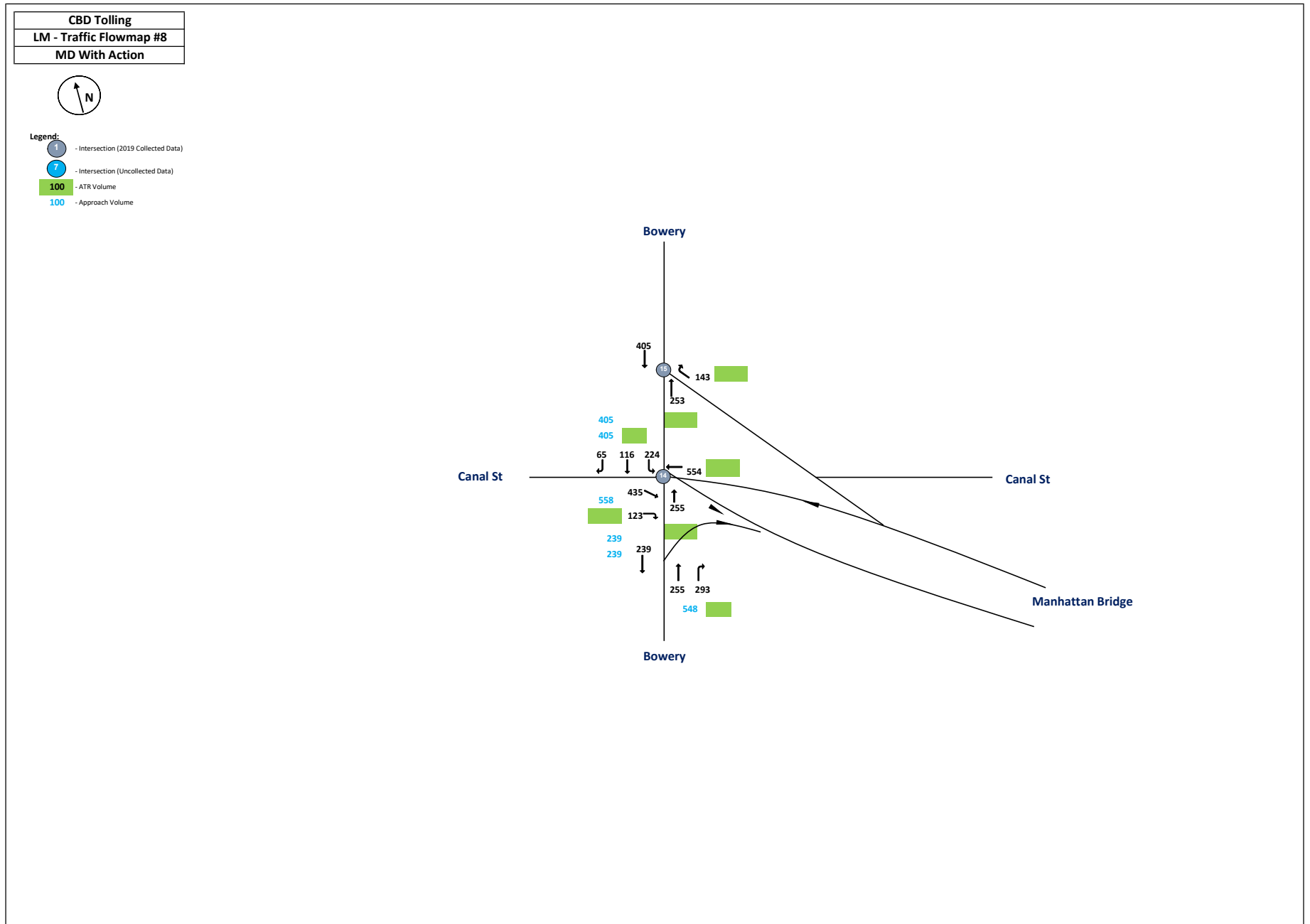






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DOT\_0046629



DRAFT, PRIVILEGED, AND CONFIDENTIAL

DOT\_0046630

LM

5:00:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			PM Peak Hour					
			L2	L	T	R	R2	Total
<b>Edgar St. and Trinity Pl.</b> <b>2019 (TMC-010)</b>	<b>1</b>							
Edgar St.	1	EB	0	136	0	0	0	
478 Exit Ramp.	1	NE	0	0	0	0	0	
Trinity Pl.	1	NB	0	0	0	0	0	
Trinity Pl.	1	SB	0	0	0	0	0	<b>136</b>
<b>Rector St. and Trinity Pl.</b> <b>2019 (TMC-011)</b>	<b>2</b>							
Rector St.	2	EB	0	68	38	0	0	
Rector St.	2	WB	0	0	0	0	0	
Trinity Pl.	2	NB	0	0	121	15	0	
Trinity Pl.	2	SB	0	0	0	0	0	<b>242</b>
<b>West St. and HCT Exit.</b> <b>2019 (TMC-012)</b>	<b>3</b>							
-	3	EB	0	0	0	0	0	
HCT Exit.	3	WB	0	349	0	0	0	
West St.	3	NB	0	0	538	0	1206	
West St.	3	SB	0	0	1197	0	0	<b>3290</b>
<b>West St. and HCT Exit.</b> <b>2019 (TMC-012)</b>	<b>333</b>							
W. Thams St.	333	EB	0	0	0	0	0	
HCT Exit.	333	WB	0	0	0	510	0	
West St.	333	NB	0	0	538	0	0	
West St.	333	SB	0	0	1197	0	0	<b>2245</b>
<b>Chambers St. and Centre St.</b> <b>2018</b>	<b>4</b>							
Chambers St.	4	EB	0	0	0	464	0	
-	4	WB	0	0	0	0	0	
Centre St.	4	NB	0	374	448	0	0	
Centre St.	4	SB	0	0	290	12	0	<b>1588</b>
<b>Hudson St. and Canal St.</b> <b>2018</b>	<b>5</b>							
Canal St.	5	EB	5	178	419	0	0	
Canal St.	5	WB	0	0	0	0	0	
Hudson St.	5	NB	0	45	585	159	8	
Hudson St.	5	SB	0	0	0	0	0	<b>1399</b>

LM

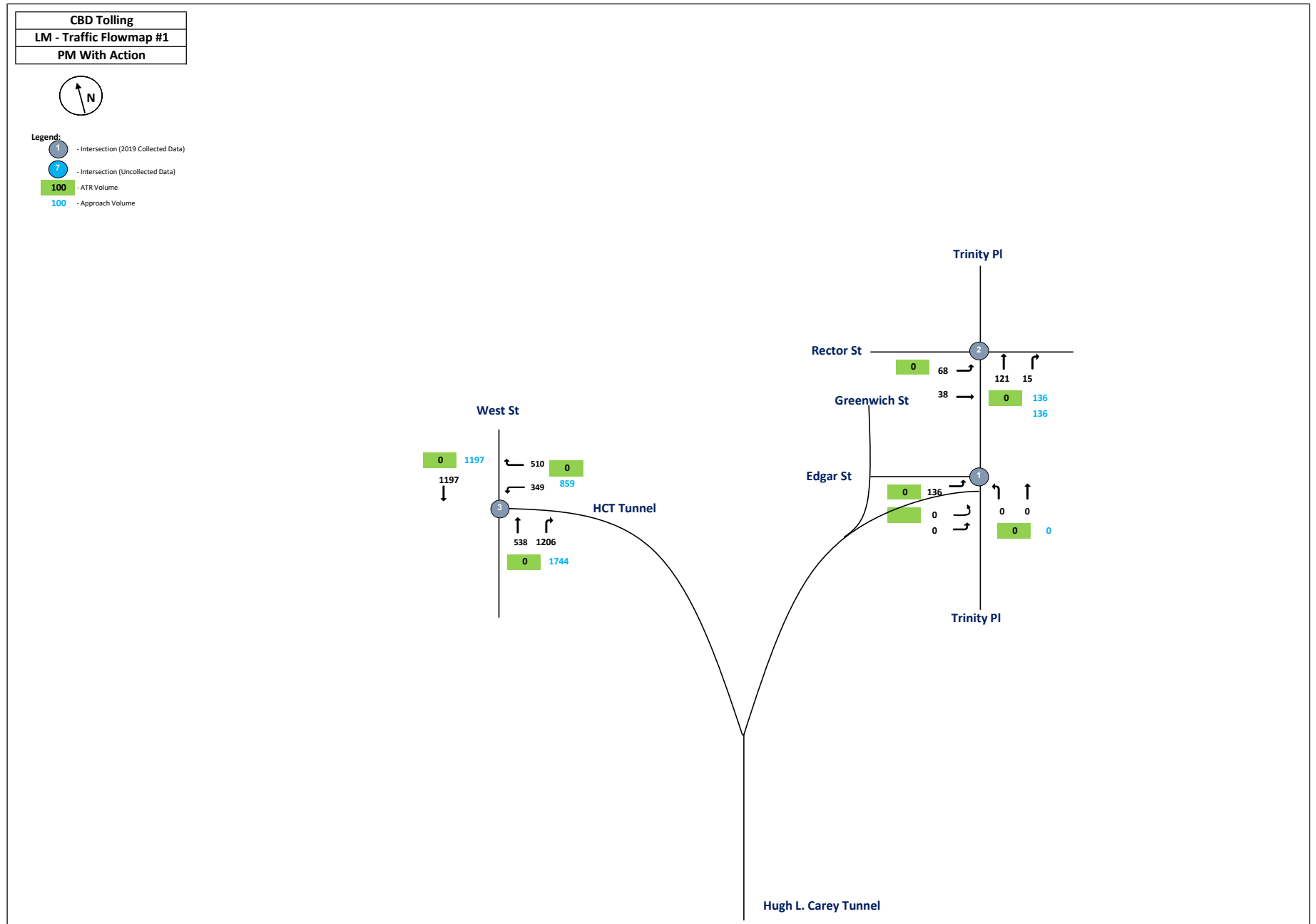
5:00:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			PM Peak Hour					
			L2	L	T	R	R2	Total
<b>Hudson St. and Canal St.</b>								
<b>2018</b>	<b>555</b>							
Canal St.	555	EB	0	0	427	0	0	
Canal St.	555	WB	0	0	0	1405	0	
Hudson St.	555	NB	0	0	0	0	0	
Hudson St.	555	SB	0	0	0	0	0	<b>1832</b>
<b>West St. and Canal St N.</b>								
<b>2018</b>	<b>7</b>							
Canal St N.	7	EB	0	0	0	0	0	
-	7	WB	0	0	0	0	0	
West St.	7	NB	0	0	2629	5	0	
West St.	7	SB	0	484	1734	0	0	<b>4852</b>
<b>West St. and Canal St S.</b>								
<b>2018</b>	<b>777</b>							
-	777	EB	0	0	0	0	0	
Canal St S.	777	WB	0	0	0	0	0	
West St.	777	NB	0	0	2629	0	0	
West St.	777	SB	0	0	2218	0	0	<b>4847</b>
<b>West St. and Albany St.</b>								
<b>2019 (TMC-013)</b>	<b>9</b>							
Albany St.	9	EB	0	139	90	81	0	
-	9	WB	0	0	0	0	0	
West St.	9	NB	0	0	1227	47	0	
West St.	9	SB	0	0	2192	76	0	<b>3852</b>
<b>West St. and Vesey St.</b>								
<b>2019 (TMC-014)</b>	<b>10</b>							
Vesey St.	10	EB	0	99	0	121	0	
Vesey St.	10	WB	0	10	0	0	0	
West St.	10	NB	0	0	1462	0	0	
West St.	10	SB	0	0	2345	134	0	<b>136</b>
<b>West St. and Chambers St.</b>								
<b>2019 (TMC-015)</b>	<b>11</b>							
Chambers St.	11	EB	0	49	20	5	0	
Chambers St.	11	WB	0	126	90	392	0	
West St.	11	NB	0	0	1754	35	0	
West St.	11	SB	0	183	1809	90	0	<b>4553</b>

LM

5:00:00 PM

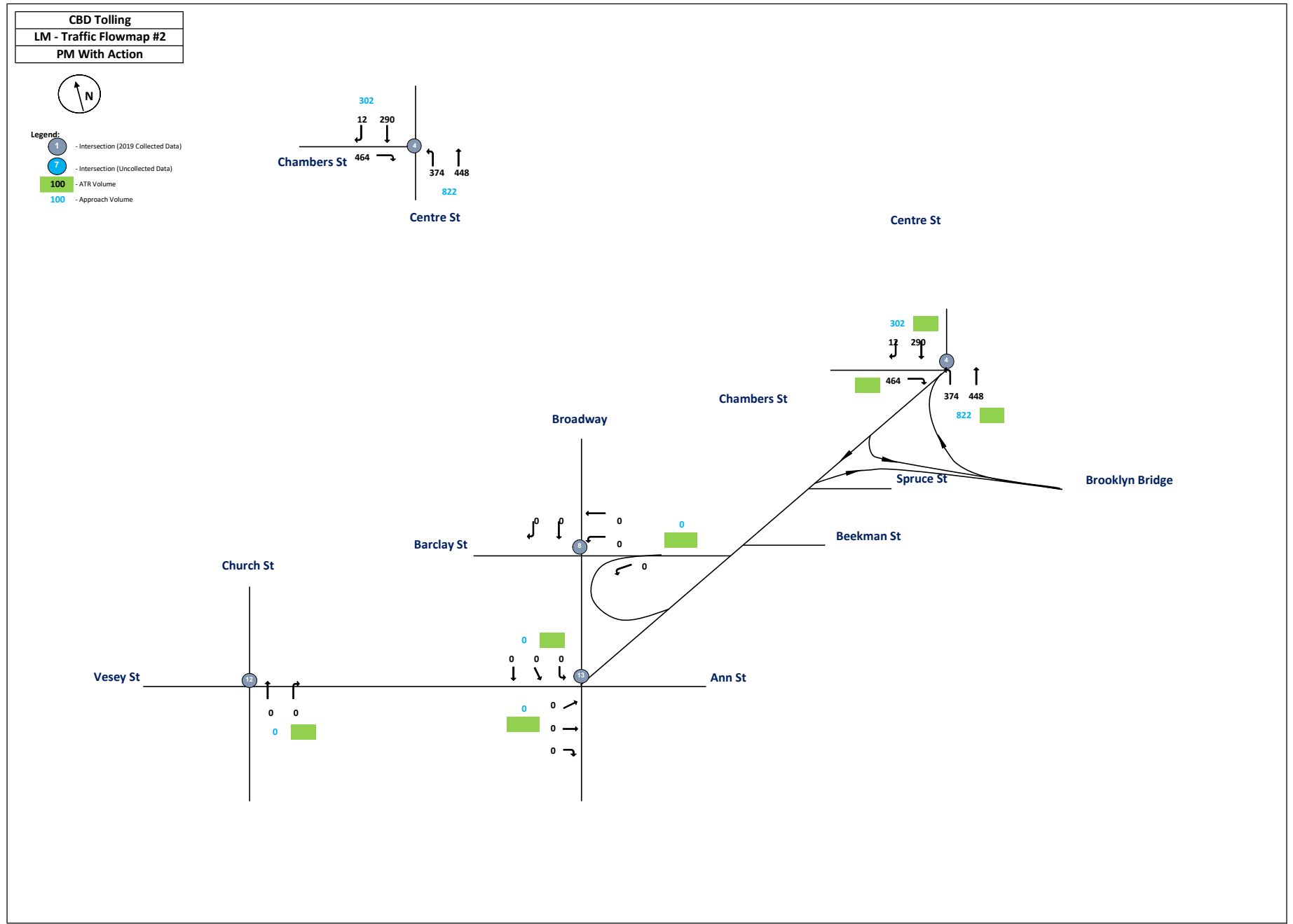
Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			PM Peak Hour					
			L2	L	T	R	R2	Total
<b>Bowey and Canal St./Manhattan Bridge Off-Ramp</b>								
<b>2018</b>	<b>14</b>							
Canal St.	14	EB	0	0	800	83	0	
Manhattan Bridge Off-Ramp	14	WB	0	0	347	0	0	
Bowey	14	NB	0	0	167	472	0	
Bowey	14	SB	0	400	46	16	0	<b>2331</b>
<b>Bowey and Manhattan Bridge Off-Ramp</b>								
<b>2018</b>	<b>15</b>							
	15	EB	0	0	0	0	0	
Manhattan Bridge Off-Ramp	15	WB	0	0	0	222	0	
Bowey	15	NB	0	0	167	0	0	
Bowey	15	SB	0	0	462	0	0	<b>851</b>
<b>6th Ave. and Watts St</b>								
<b>2018</b>	<b>18</b>							
Watts St	18	EB	0	0	0	0	0	
Watts St	18	WB	0	0	195	0	0	
6th Ave.	18	NB	0	132	483	0	0	
6th Ave.	18	SB	0	0	0	0	0	<b>810</b>
<b>6th Ave. and Canal St.</b>								
<b>2018</b>	<b>19</b>							
Canal St.	19	EB	0	0	351	0	0	
Canal St.	19	WB	0	0	1247	9	0	
6th Ave.	19	NB	0	37	591	3	0	
Laight St.	19	NE	0	0	0	346	0	<b>2584</b>



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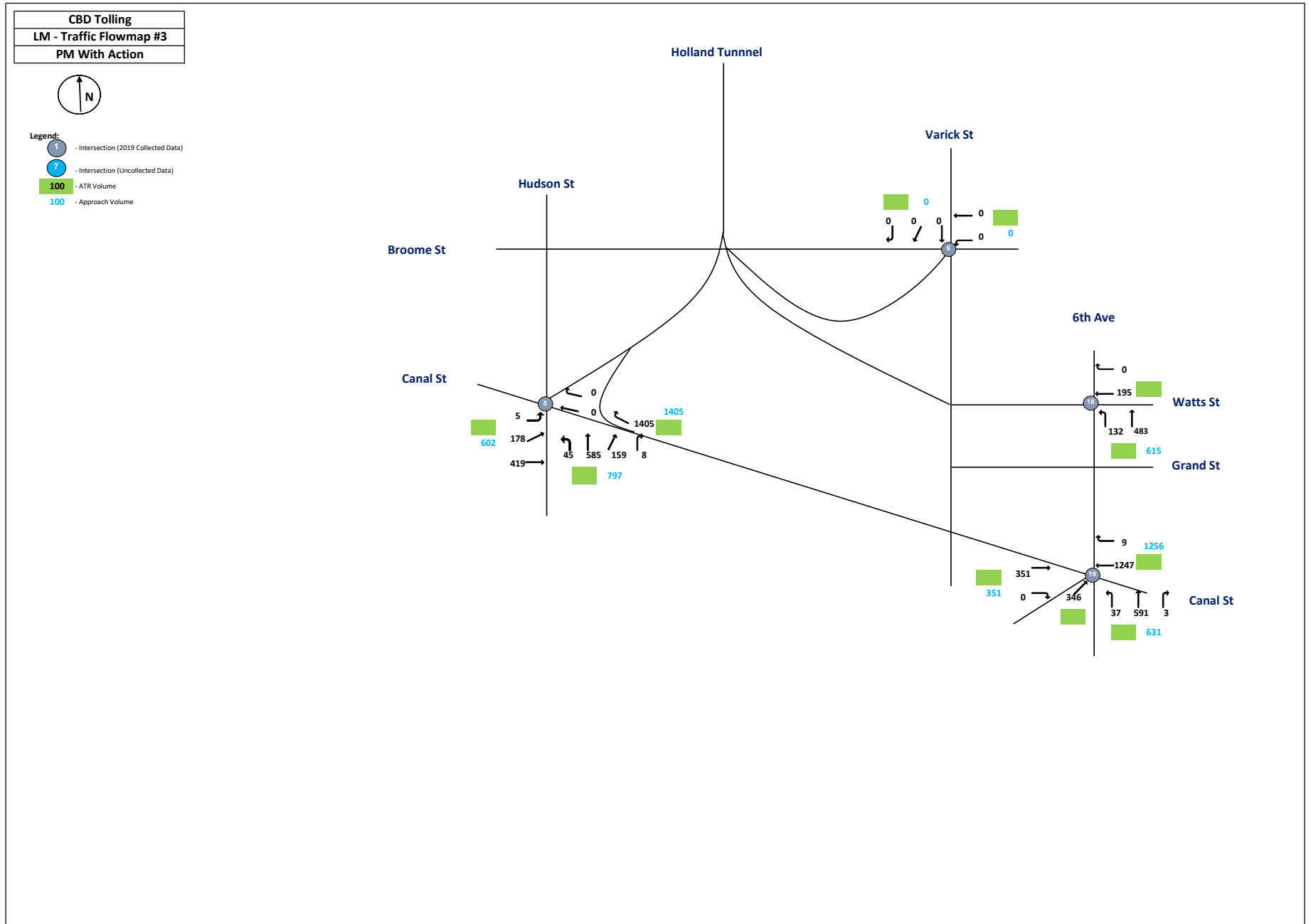
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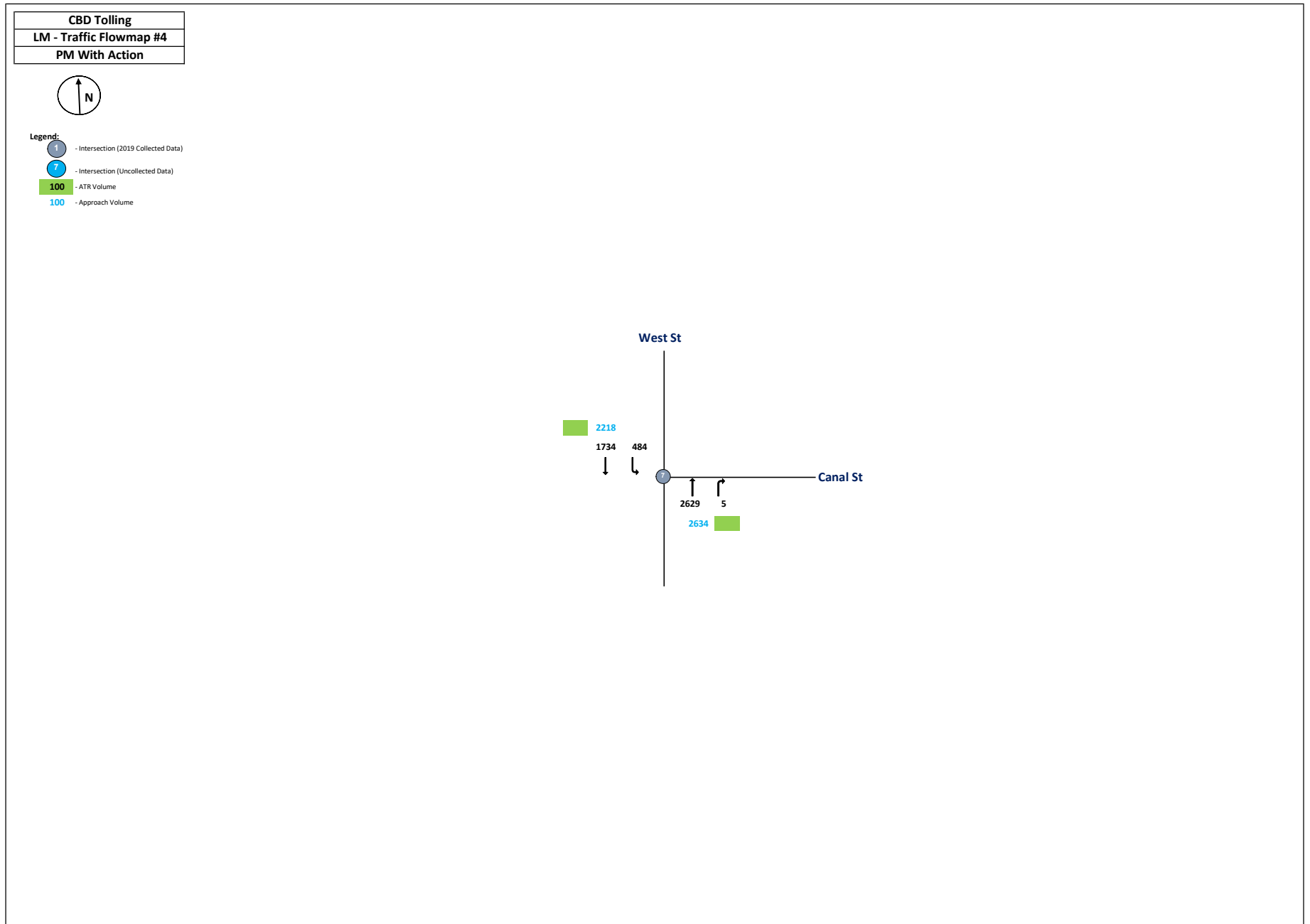
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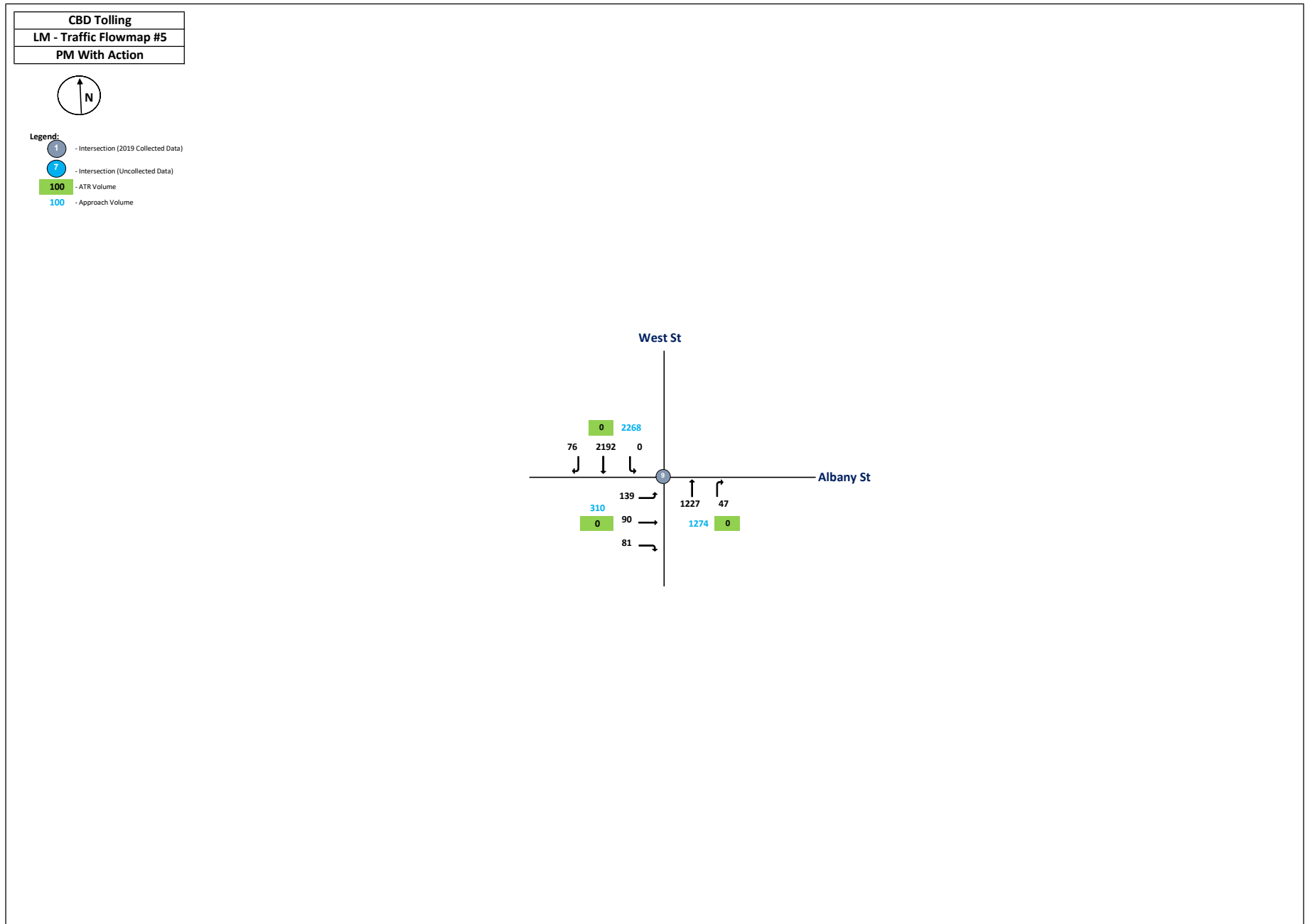
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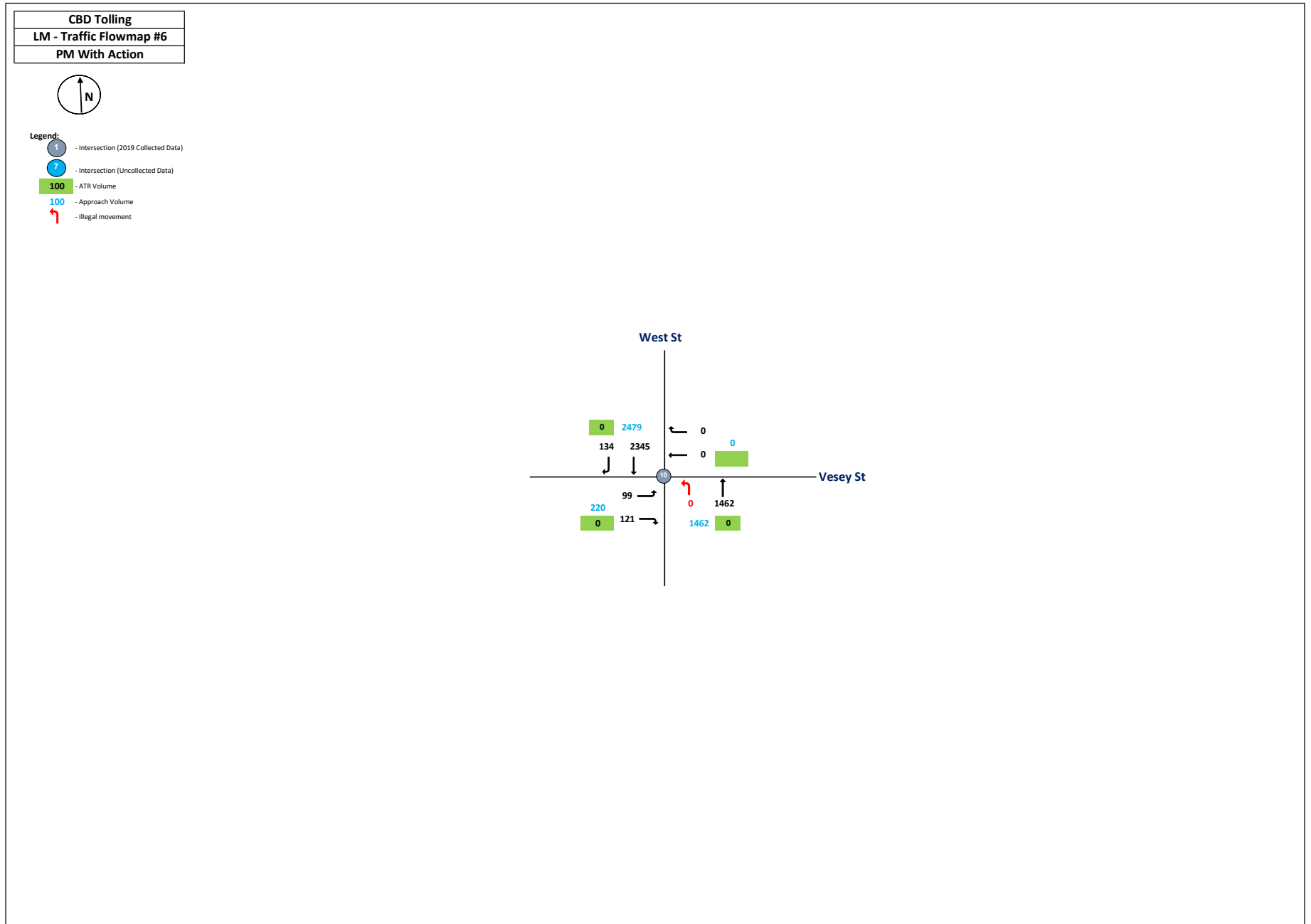


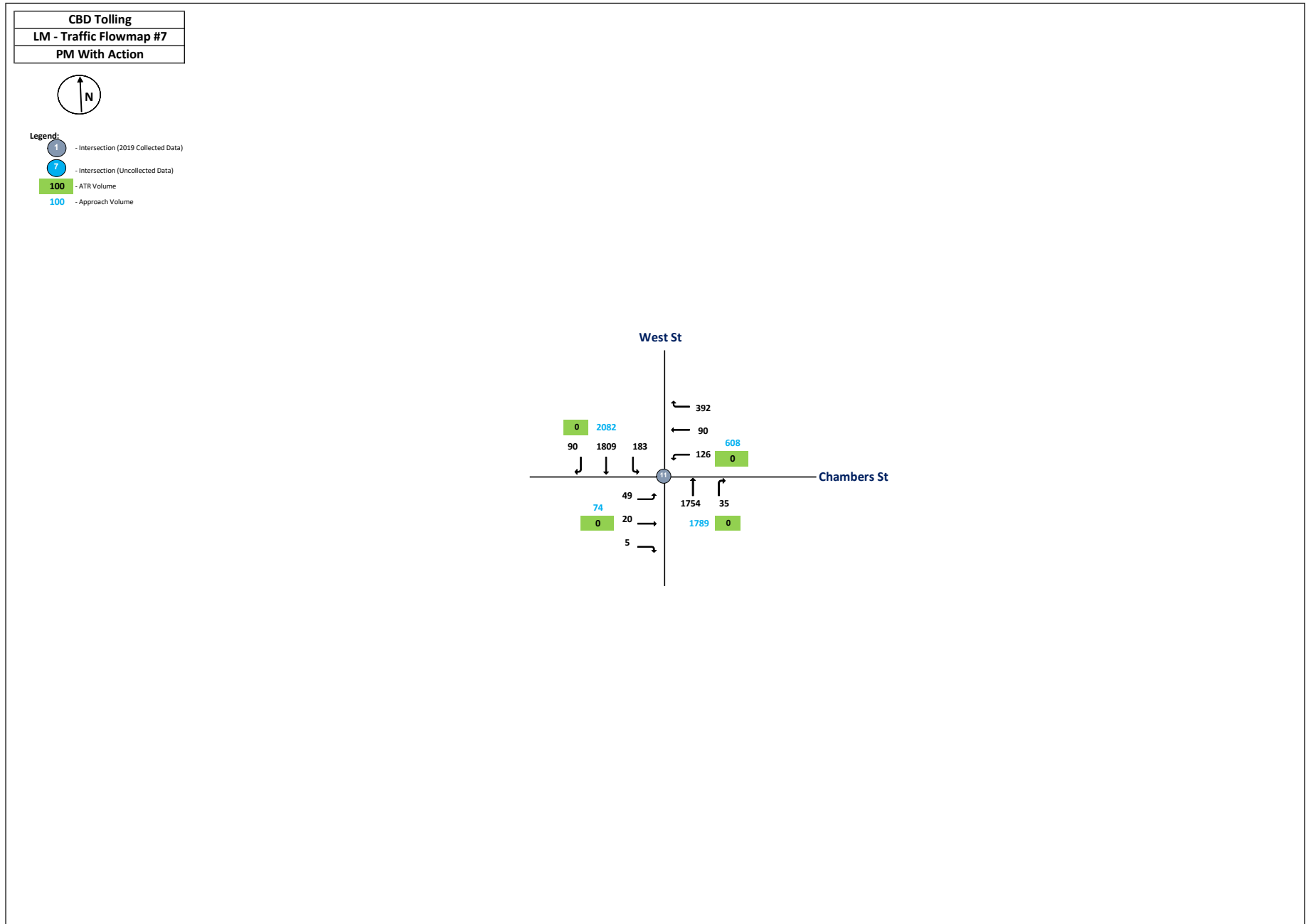
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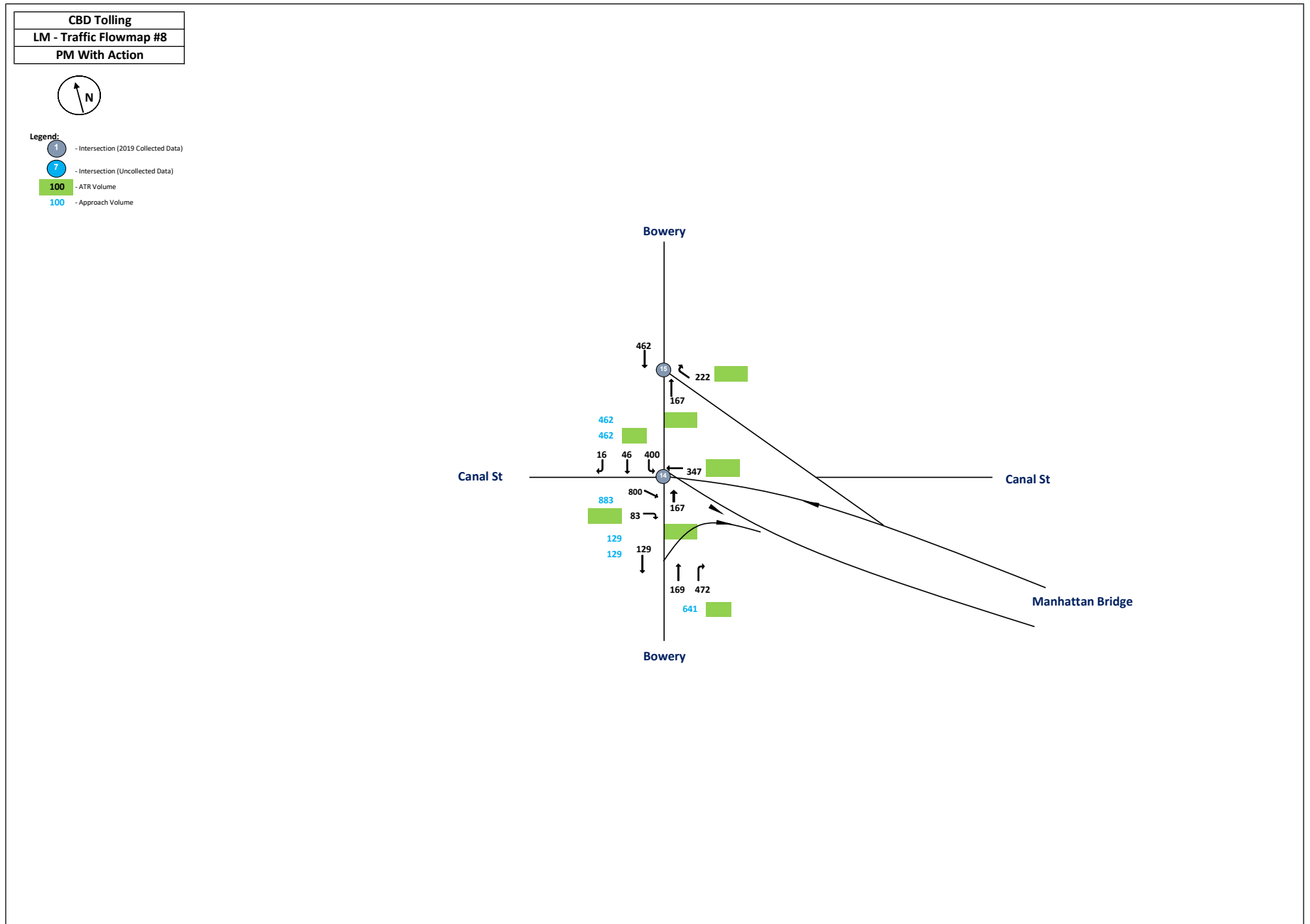
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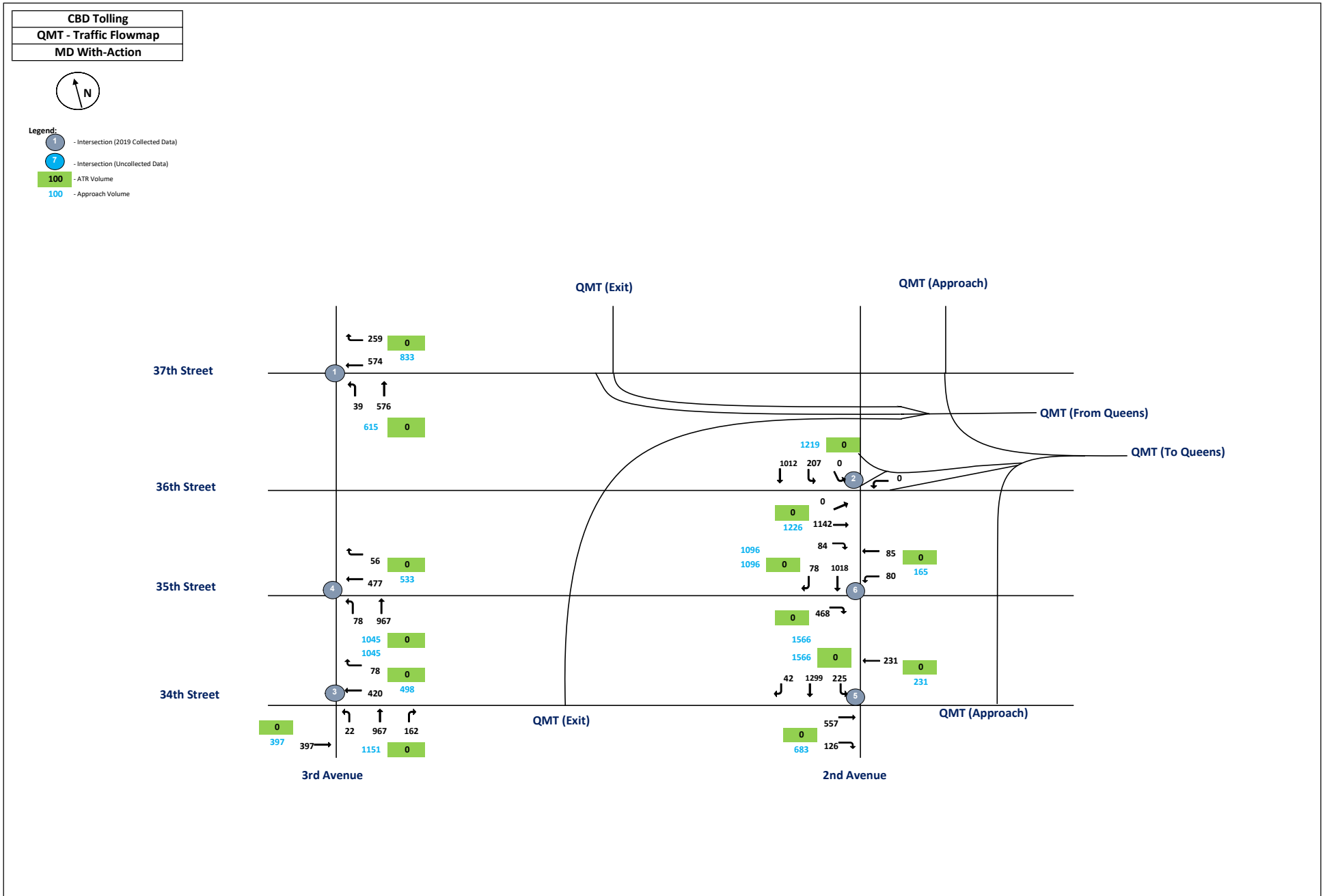
DOT\_0046641

QMT

1:00:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			MD Peak Hour					
			L2	L	T	R	R2	Total
<b>37th St &amp; 3rd Ave</b> <b>2019 (TMC-016)</b>	<b>1</b>							
37th St	1	EB	0	0	0	0	0	
37th St	1	WB	0	0	574	259	0	
3rd Ave	1	NB	0	39	576	0	0	
3rd Ave	1	SB	0	0	0	0	0	<b>1448</b>
<b>36th St &amp; 2nd Ave</b> <b>2019 (TMC-017)</b>	<b>2</b>							
36th St	2	EB	0	0	1142	84	0	
36th St	2	WB	0	0	0	0	0	
2nd Ave	2	NB	0	0	0	0	0	
2nd Ave	2	SB	0	207	1012	0	0	<b>2445</b>
<b>34th St &amp; 3rd Ave</b> <b>2019 (TMC-018)</b>	<b>3</b>							
34th St	3	EB	0	0	397	0	0	
34th St	3	WB	0	0	420	78	0	
3rd Ave	3	NB	0	22	967	162	0	
	3	SB	0	0	0	0	0	<b>2046</b>
<b>35th St &amp; 3rd Ave</b> <b>2019 (TMC-019)</b>	<b>4</b>							
35th St	4	EB	0	0	0	0	0	
35th St	4	WB	0	0	477	56	0	
3rd Ave	4	NB	0	78	967	0	0	
	4	SB	0	0	0	0	0	<b>1578</b>
<b>34th St &amp; 2nd Ave</b> <b>2019 (TMC-020)</b>	<b>5</b>							
34th St	5	EB	0	0	557	126	0	
34th St	5	WB	0	0	231	0	0	
2nd Ave	5	NB	0	0	0	0	0	
2nd Ave	5	SB	0	225	1299	42	0	<b>2480</b>
<b>35th St &amp; 2nd Ave</b> <b>2019 (TMC-021)</b>	<b>6</b>							
35th St	6	EB	0	0	0	468	0	
35th St	6	WB	0	80	85	0	0	
2nd Ave	6	NB	0	0	0	0	0	
2nd Ave	6	SB	0	0	1018	78	0	<b>1729</b>





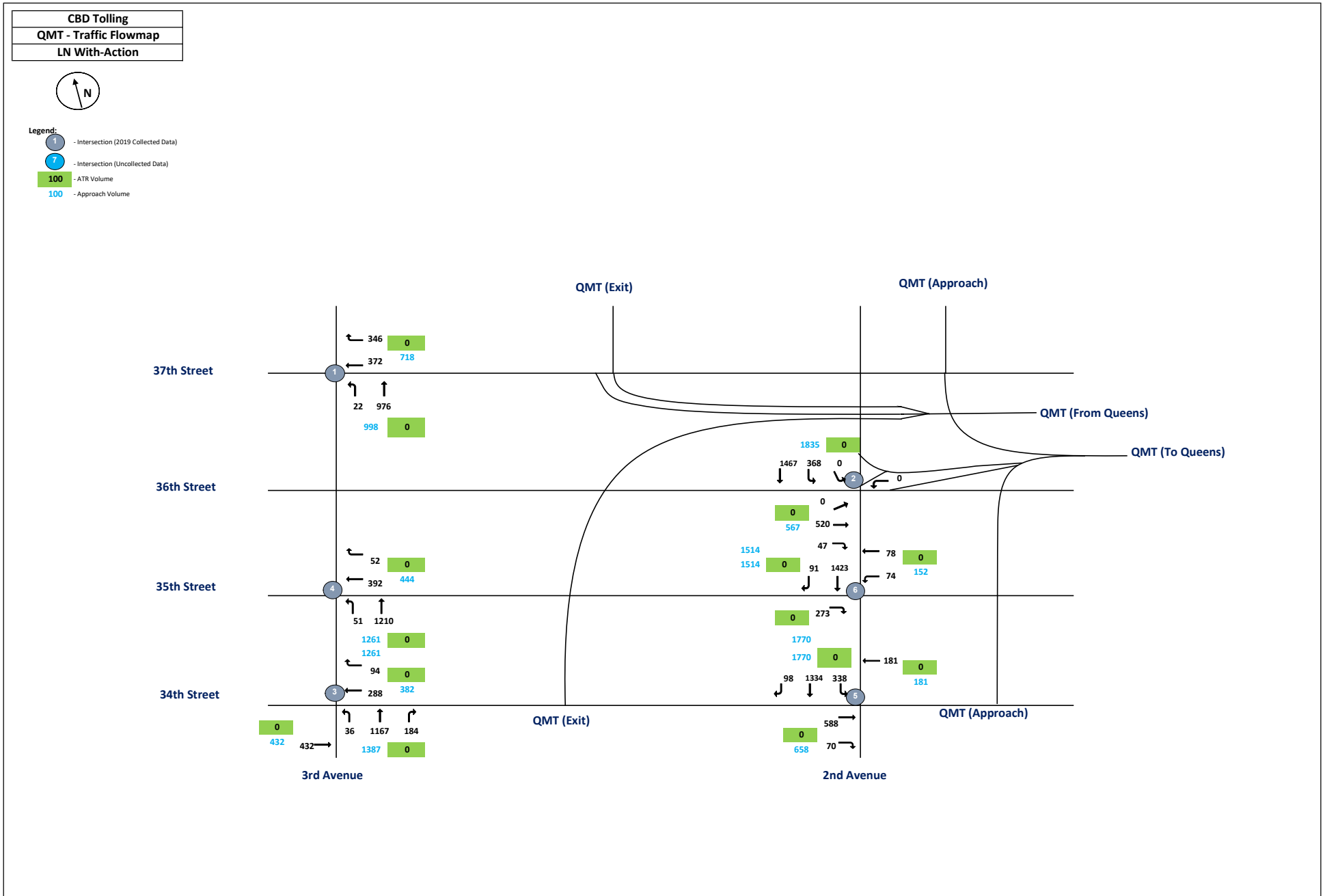
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DOT\_0046643

QMT

9:00:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			LN Peak Hour					
			L2	L	T	R	R2	Total
<b>37th St &amp; 3rd Ave</b> <b>2019 (TMC-016)</b>	<b>1</b>							
37th St	1	EB	0	0	0	0	0	
37th St	1	WB	0	0	372	346	0	
3rd Ave	1	NB	0	22	976	0	0	
3rd Ave	1	SB	0	0	0	0	0	<b>1716</b>
<b>36th St &amp; 2nd Ave</b> <b>2019 (TMC-017)</b>	<b>2</b>							
36th St	2	EB	0	0	520	47	0	
36th St	2	WB	0	0	0	0	0	
2nd Ave	2	NB	0	0	0	0	0	
2nd Ave	2	SB	0	368	1467	0	0	<b>2402</b>
<b>34th St &amp; 3rd Ave</b> <b>2019 (TMC-018)</b>	<b>3</b>							
34th St	3	EB	0	0	432	0	0	
34th St	3	WB	0	0	288	94	0	
3rd Ave	3	NB	0	36	1167	184	0	
	3	SB	0	0	0	0	0	<b>2201</b>
<b>35th St &amp; 3rd Ave</b> <b>2019 (TMC-019)</b>	<b>4</b>							
35th St	4	EB	0	0	0	0	0	
35th St	4	WB	0	0	392	52	0	
3rd Ave	4	NB	0	51	1210	0	0	
	4	SB	0	0	0	0	0	<b>1705</b>
<b>34th St &amp; 2nd Ave</b> <b>2019 (TMC-020)</b>	<b>5</b>							
34th St	5	EB	0	0	588	70	0	
34th St	5	WB	0	0	181	0	0	
2nd Ave	5	NB	0	0	0	0	0	
2nd Ave	5	SB	0	338	1334	98	0	<b>2609</b>
<b>35th St &amp; 2nd Ave</b> <b>2019 (TMC-021)</b>	<b>6</b>							
35th St	6	EB	0	0	0	273	0	
35th St	6	WB	0	74	78	0	0	
2nd Ave	6	NB	0	0	0	0	0	
2nd Ave	6	SB	0	0	1423	91	0	<b>1939</b>



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DOT\_0046645

RFK-B

8:00 AM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			AM Peak Hour					
			L2	L	T	R	R2	Total
E 134th Street and St. Ann's Ave <b>2019 (TMC-060)</b>	<b>11</b>							
E 134th Street	11	EB	0	140	120	45	0	
E 134th Street	11	WB	0	0	0	0	0	
St. Ann's Ave	11	NB	0	0	140	80	0	
St. Ann's Ave	11	SB	0	145	105	0	0	<b>775</b>
Bruckner Blvd and St. Ann's Ave <b>2019 (TMC-061)</b>	<b>22</b>							
Bruckner Blvd	22	EB	0	50	1440	30	0	
Bruckner Blvd	22	WB	0	40	480	65	0	
St. Ann's Ave	22	NB	0	25	105	30	0	
St. Ann's Ave	22	SB	0	55	70	25	0	<b>2415</b>

RFK-Q

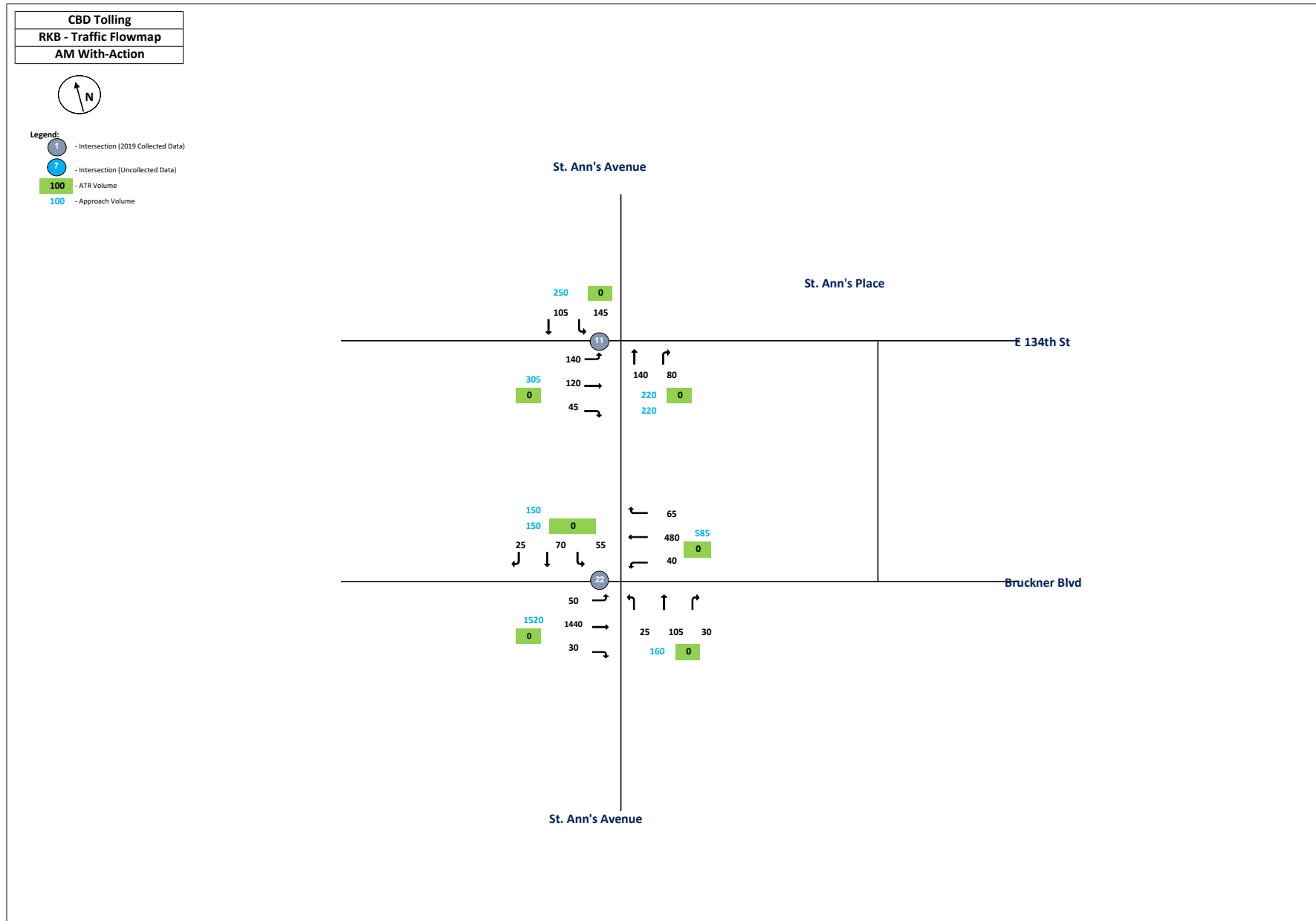
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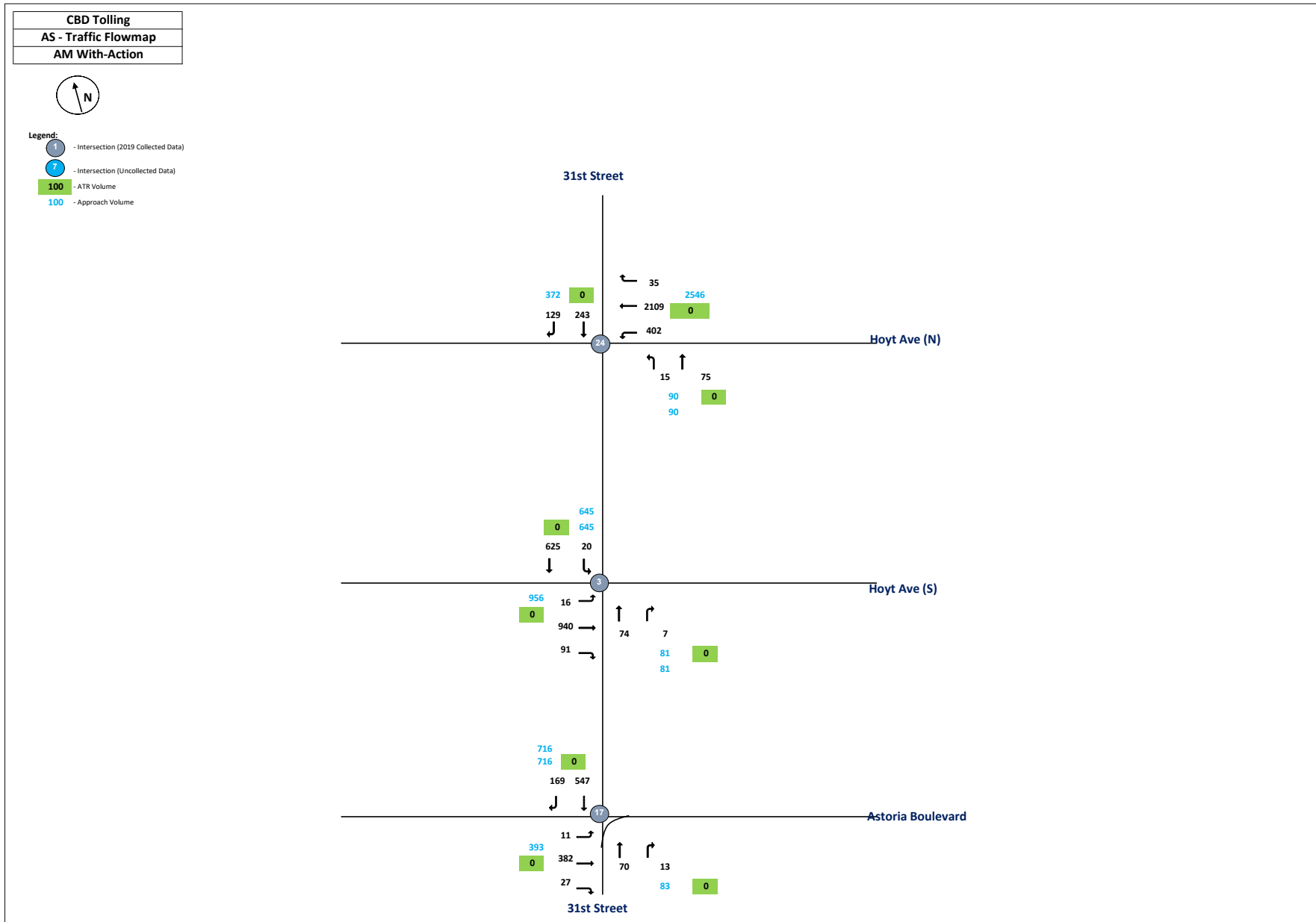
Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			AM Peak Hour					
			L2	L	T	R	R2	Total
31st Street and Astoria Blvd <b>2019 (TMC-062)</b>	<b>17</b>							
Astoria Blvd	17	EB	0	11	382	27	0	
Astoria Blvd	17	WB	0	0	0	0	0	
31st Street	17	NB	0	0	70	13	0	
31st Street	17	SB	0	0	547	169	0	<b>1219</b>
31st Street and Hoyt Ave N <b>2019 (TMC-063)</b>	<b>24</b>							
Hoyt Ave N	24	EB	0	0	0	0	0	
Hoyt Ave N	24	WB	0	402	2109	35	0	
31st Street	24	NB	0	15	75	0	0	
31st Street	24	SB	0	0	243	129	0	<b>3008</b>
31st Street and Hoyt Ave S <b>2019 (TMC-064)</b>	<b>3</b>							
Hoyt Ave S	3	EB	0	16	940	91	0	
	3		0	0	0	0	0	
31st Street	3	NB	0	0	74	7	0	
31st Street	3	SB	0	20	625	0	0	<b>1773</b>

RFK-M

8:00 AM

Intersection	Node	Approach	Total Vehicles						
			Inbound/Outbound						
			AM Peak Hour						
			L2	L	T	R	R2	Total	
E 126th Street and 2nd Ave <b>2019 (TMC-058)</b>									
<b>RFK Ramp</b>	<b>1</b>	NW	30	190	0	415	0		
E 126th Street	1	EB	0	0	0	0	0		
E 126th Street	1	WB	0	39	29	90	0		
2nd Ave	1	NB	0	0	0	0	0		
2nd Ave	1	SB	0	0	1183	42	0	<b>1383</b>	
E 125th Street and 2nd Ave <b>2019 (TMC-059)</b>	<b>2</b>								
E 125th Street	2	EB	0	0	672	40	0		
E 125th Street	2	WB	0	11	29	0	0		
2nd Ave	2	SW	0	453	0	153	0		
2nd Ave	2	SB	0	502	699	51	0	<b>2610</b>	

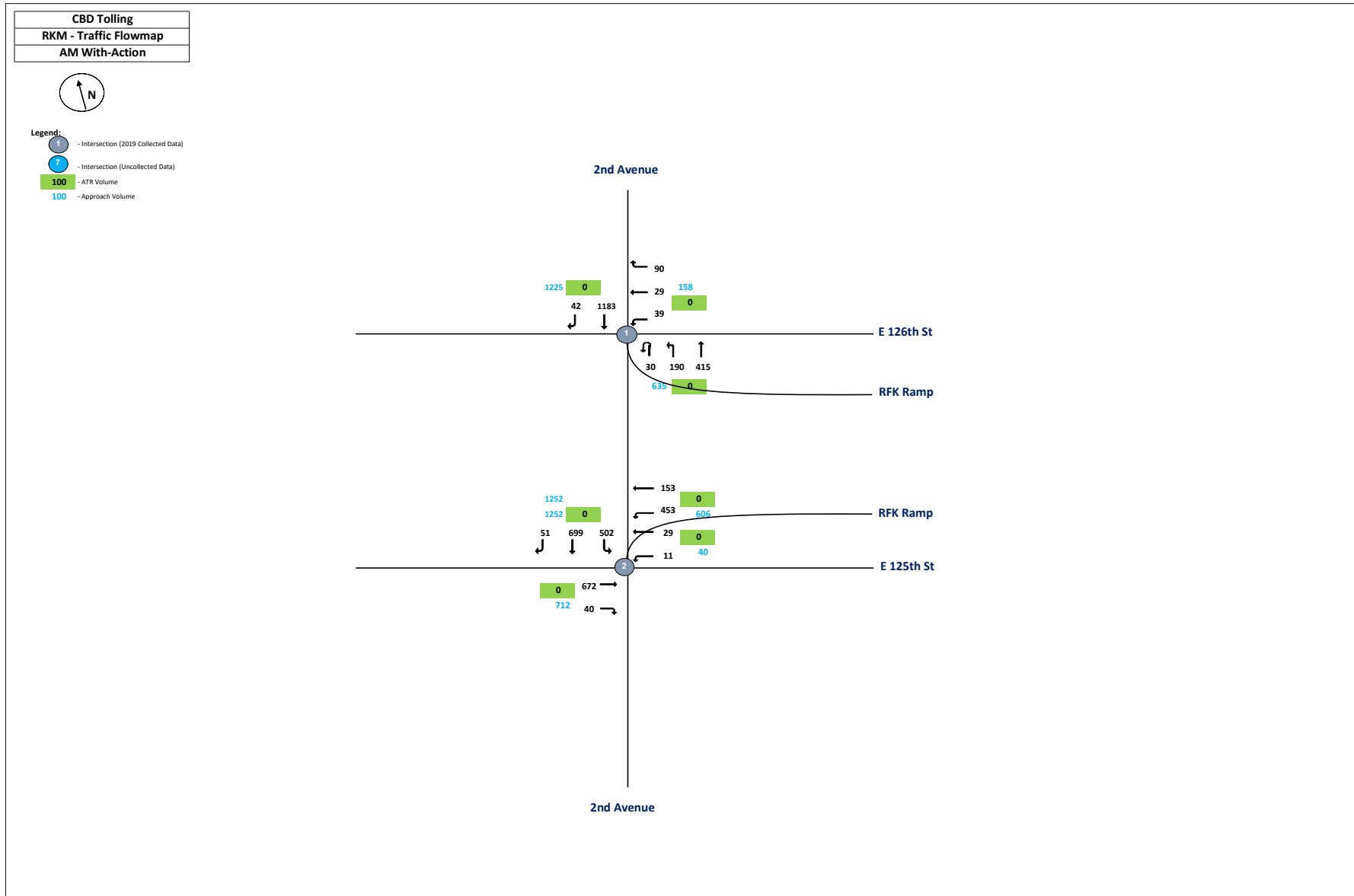




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RFK-B

5:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			PM Peak Hour					
			L2	L	T	R	R2	Total
E 134th Street and St. Ann's Ave <b>2019 (TMC-060)</b>	<b>11</b>							
E 134th Street	11	EB	0	155	140	30	0	
E 134th Street	11	WB	0	0	0	0	0	
St. Ann's Ave	11	NB	0	0	110	100	0	
St. Ann's Ave	11	SB	0	110	50	0	0	<b>695</b>
Bruckner Blvd and St. Ann's Ave <b>2019 (TMC-061)</b>	<b>22</b>							
Bruckner Blvd	22	EB	0	50	1300	45	0	
Bruckner Blvd	22	WB	0	25	610	65	0	
St. Ann's Ave	22	NB	0	20	95	30	0	
St. Ann's Ave	22	SB	0	35	20	25	0	<b>2320</b>

RFK-Q

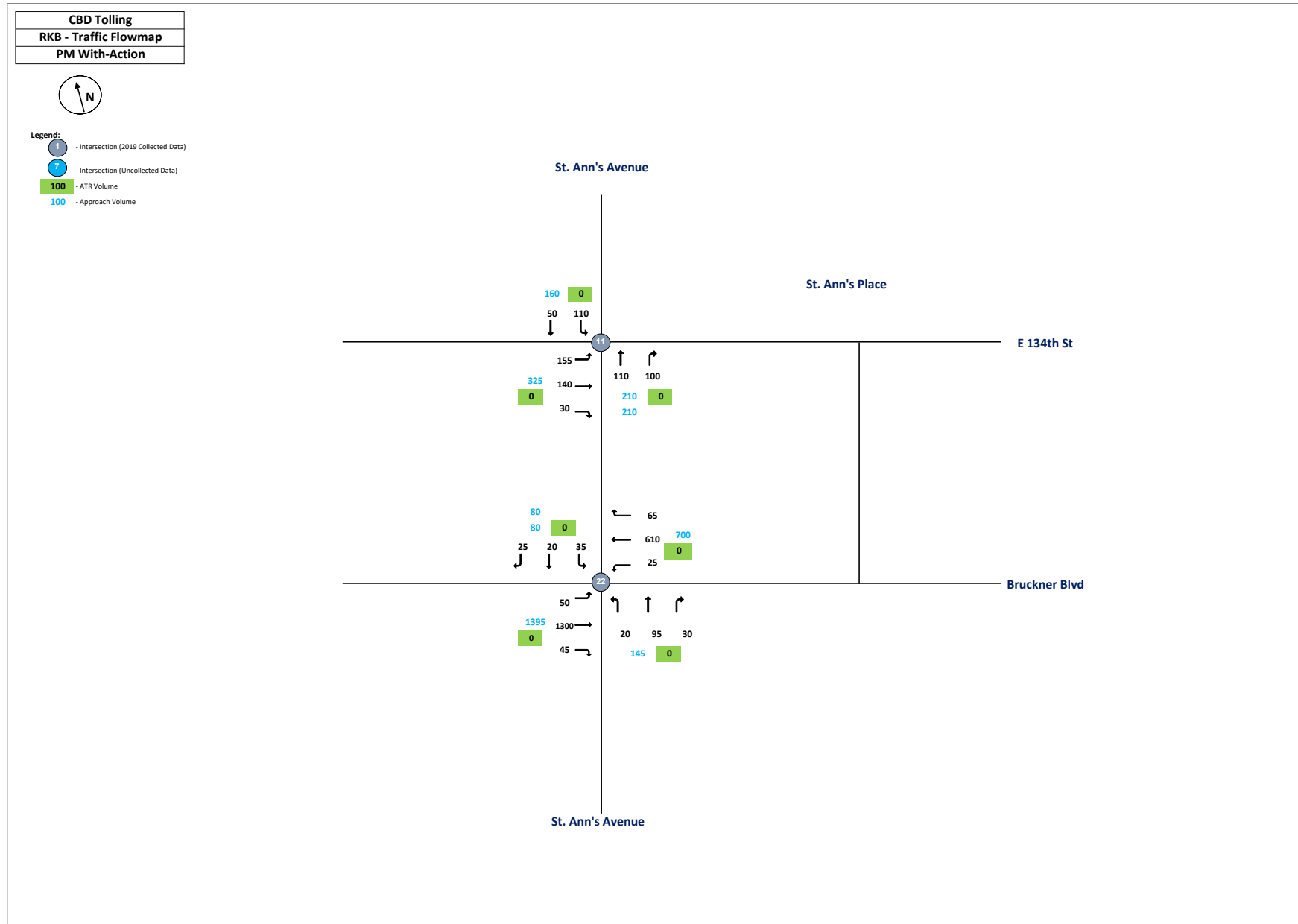
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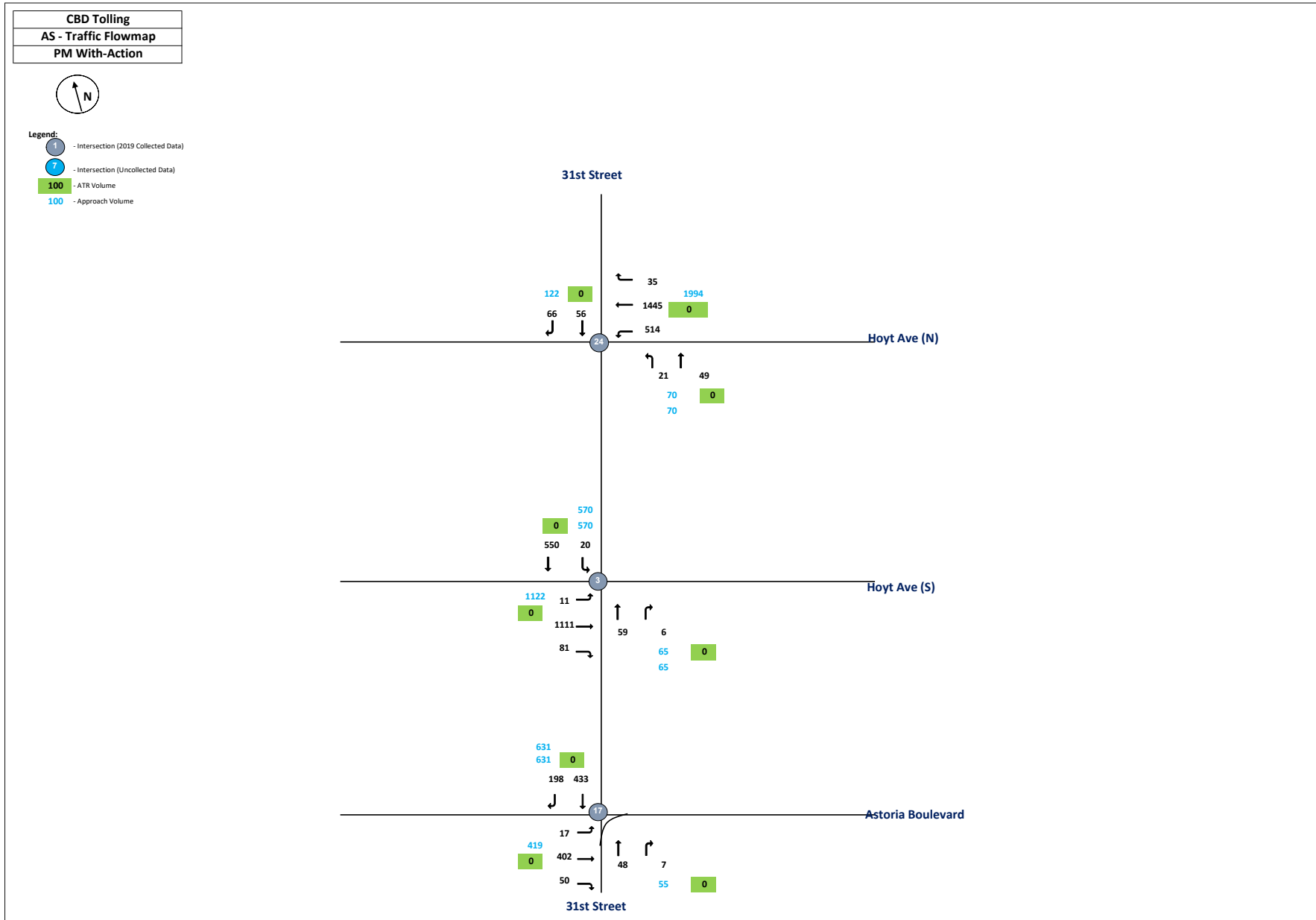
Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			PM Peak Hour					
			L2	L	T	R	R2	Total
31st Street and Astoria Blvd <b>2019 (TMC-062)</b>	<b>17</b>							
Astoria Blvd	17	EB	0	17	402	50	0	
Astoria Blvd	17	WB	0	0	0	0	0	
31st Street	17	NB	0	0	48	7	0	
31st Street	17	SB	0	0	433	198	0	<b>1155</b>
31st Street and Hoyt Ave N <b>2019 (TMC-063)</b>	<b>24</b>							
Hoyt Ave N	24	EB	0	0	0	0	0	
Hoyt Ave N	24	WB	0	514	1445	35	0	
31st Street	24	NB	0	21	49	0	0	
31st Street	24	SB	0	0	56	66	0	<b>2186</b>
31st Street and Hoyt Ave S <b>2019 (TMC-064)</b>	<b>3</b>							
Hoyt Ave S	3	EB	0	11	1111	81	0	
	3		0	0	0	0	0	
31st Street	3	NB	0	0	59	6	0	
31st Street	3	SB	0	20	550	0	0	<b>1838</b>

RFK-M

5:00 PM

Intersection	Node	Approach	Total Vehicles						
			Inbound/Outbound						
			PM Peak Hour						
			L2	L	T	R	R2	Total	
E 126th Street and 2nd Ave 2019 (TMC-058)									
RFK Ramp	1	NW	25	180	0	765	0		
E 126th Street	1	EB	0	0	0	0	0		
E 126th Street	1	WB	0	42	22	44	0		
2nd Ave	1	NB	0	0	0	0	0		
2nd Ave	1	SB	0	0	1332	31	0	1471	
E 125th Street and 2nd Ave 2019 (TMC-059)	2								
E 125th Street	2	EB	0	0	731	20	0		
E 125th Street	2	WB	0	26	83	0	0		
2nd Ave	2	SW	0	583	0	218	0		
2nd Ave	2	SB	0	633	715	51	0	3060	





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RKM

5:00 PM

Intersection	Node	Approach	Total Vehicles						Total
			Inbound/Outbound						
			PM Peak Hour						
			L2	L	T	R	R2		
E 126th Street and 2nd Ave 2019 (TMC-058)									
RFK Ramp	1	NW	25	180	0	765	0		
E 126th Street	1	EB	0	0	0	0	0		
E 126th Street	1	WB	0	42	22	44	0		
2nd Ave	1	NB	0	0	0	0	0		
2nd Ave	1	SB	0	0	1332	31	0	1471	
E 125th Street and 2nd Ave 2019 (TMC-059)	2								
E 125th Street	2	EB	0	0	731	20	0		
E 125th Street	2	WB	0	26	83	0	0		
2nd Ave	2	SW	0	583	0	218	0		
2nd Ave	2	SB	0	633	715	51	0	3060	

RFK-B

9:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			LN Peak Hour					
			L2	L	T	R	R2	Total
E 134th Street and St. Ann's Ave <b>2019 (TMC-060)</b>	<b>11</b>							
E 134th Street	11	EB	0	190	90	35	0	
E 134th Street	11	WB	0	0	0	0	0	
St. Ann's Ave	11	NB	0	0	100	20	0	
St. Ann's Ave	11	SB	0	40	50	0	0	<b>525</b>
Bruckner Blvd and St. Ann's Ave <b>2019 (TMC-061)</b>	<b>22</b>							
Bruckner Blvd	22	EB	0	40	1515	10	0	
Bruckner Blvd	22	WB	0	10	500	25	0	
St. Ann's Ave	22	NB	0	10	55	15	0	
St. Ann's Ave	22	SB	0	30	10	45	0	<b>2265</b>



RFK-Q

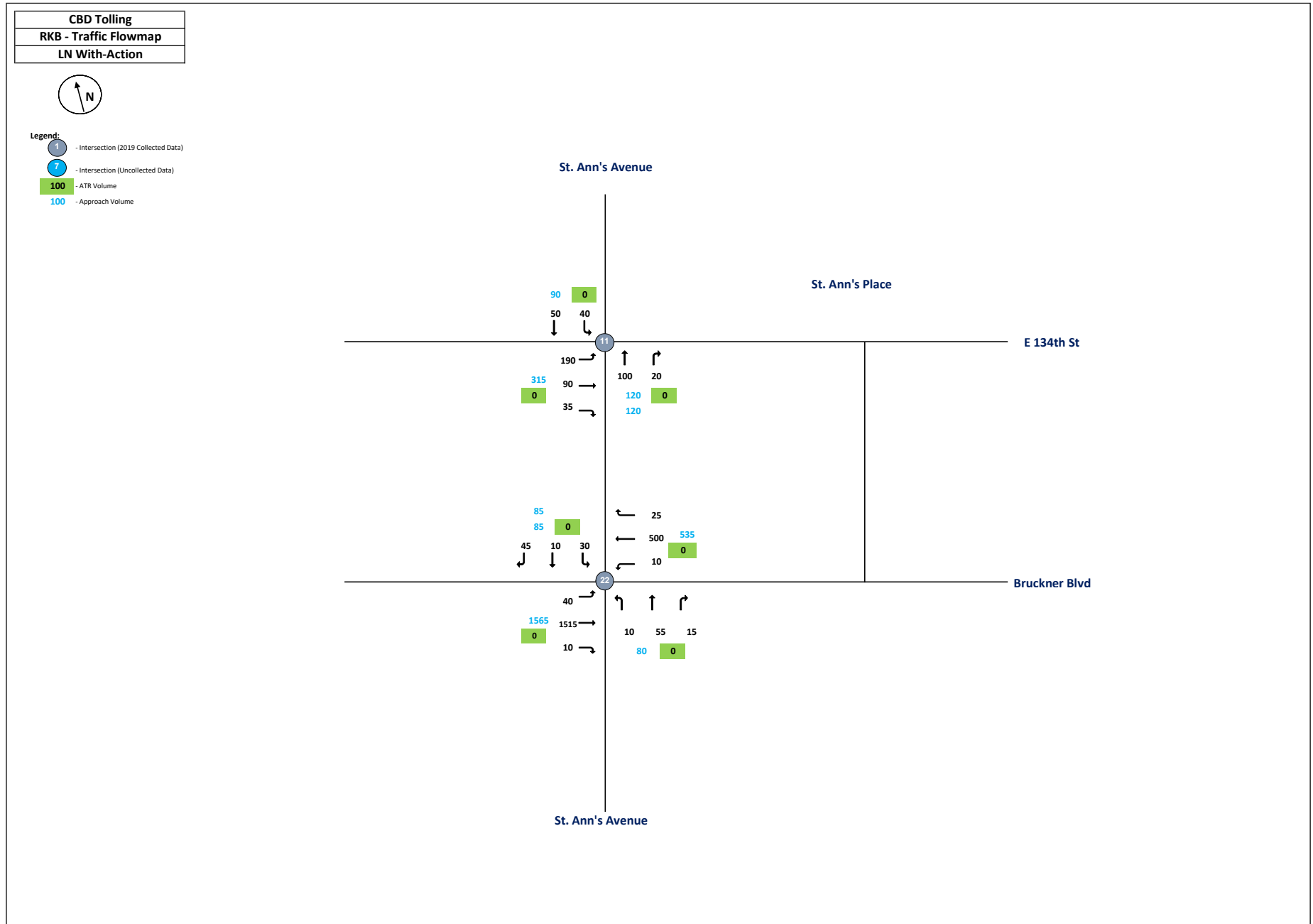
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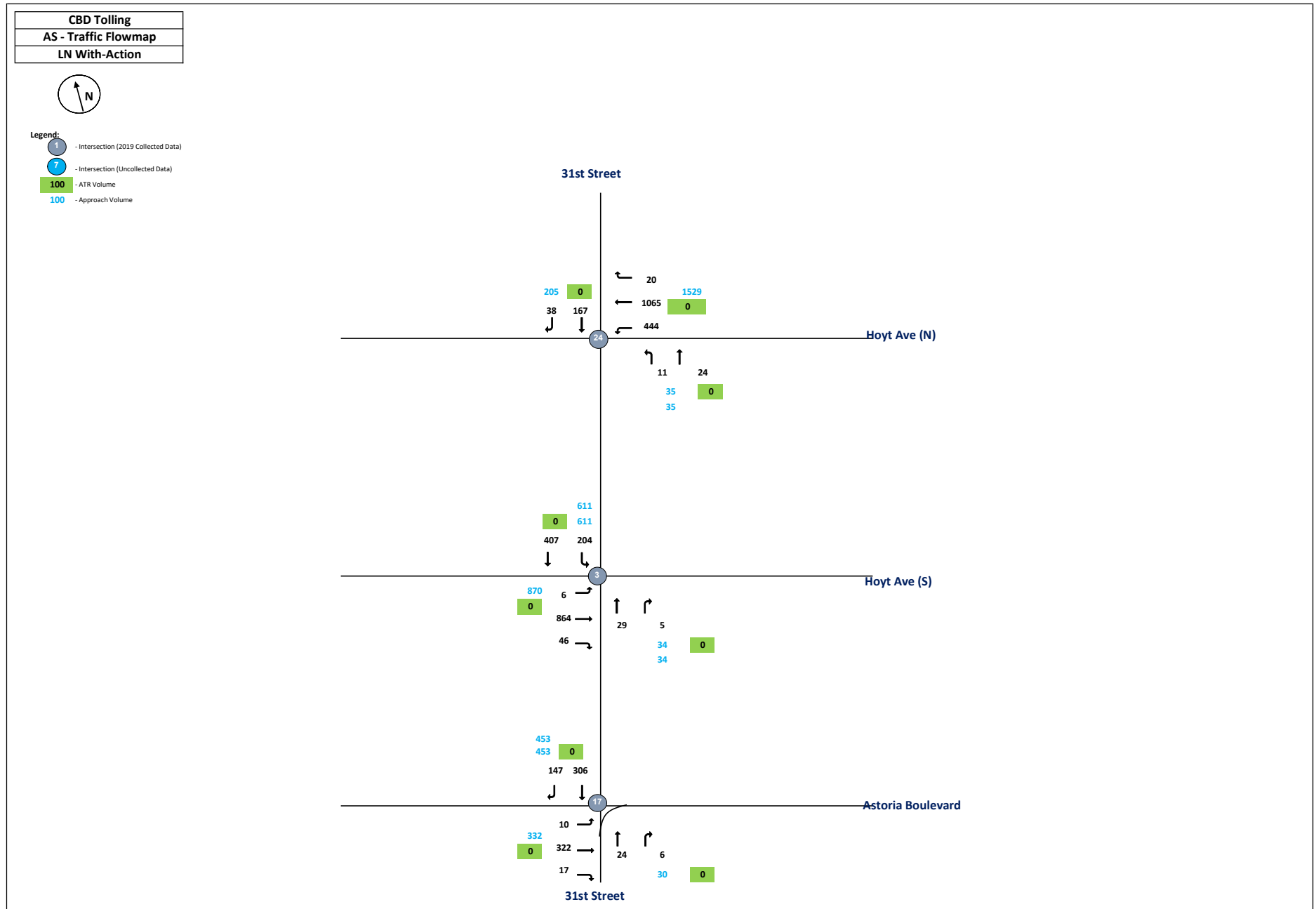
Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			LN Peak Hour					
			L2	L	T	R	R2	Total
31st Street and Astoria Blvd <b>2019 (TMC-062)</b>	<b>17</b>							
Astoria Blvd	17	EB	0	10	322	17	0	
Astoria Blvd	17	WB	0	0	0	0	0	
31st Street	17	NB	0	0	24	6	0	
31st Street	17	SB	0	0	306	147	0	<b>832</b>
31st Street and Hoyt Ave N <b>2019 (TMC-063)</b>	<b>24</b>							
Hoyt Ave N	24	EB	0	0	0	0	0	
Hoyt Ave N	24	WB	0	444	1065	20	0	
31st Street	24	NB	0	11	24	0	0	
31st Street	24	SB	0	0	167	38	0	<b>1769</b>
31st Street and Hoyt Ave S <b>2019 (TMC-064)</b>	<b>3</b>							
Hoyt Ave S	3	EB	0	6	864	46	0	
	3		0	0	0	0	0	
31st Street	3	NB	0	0	29	5	0	
31st Street	3	SB	0	204	407	0	0	<b>1561</b>

RFK-M

9:00 PM

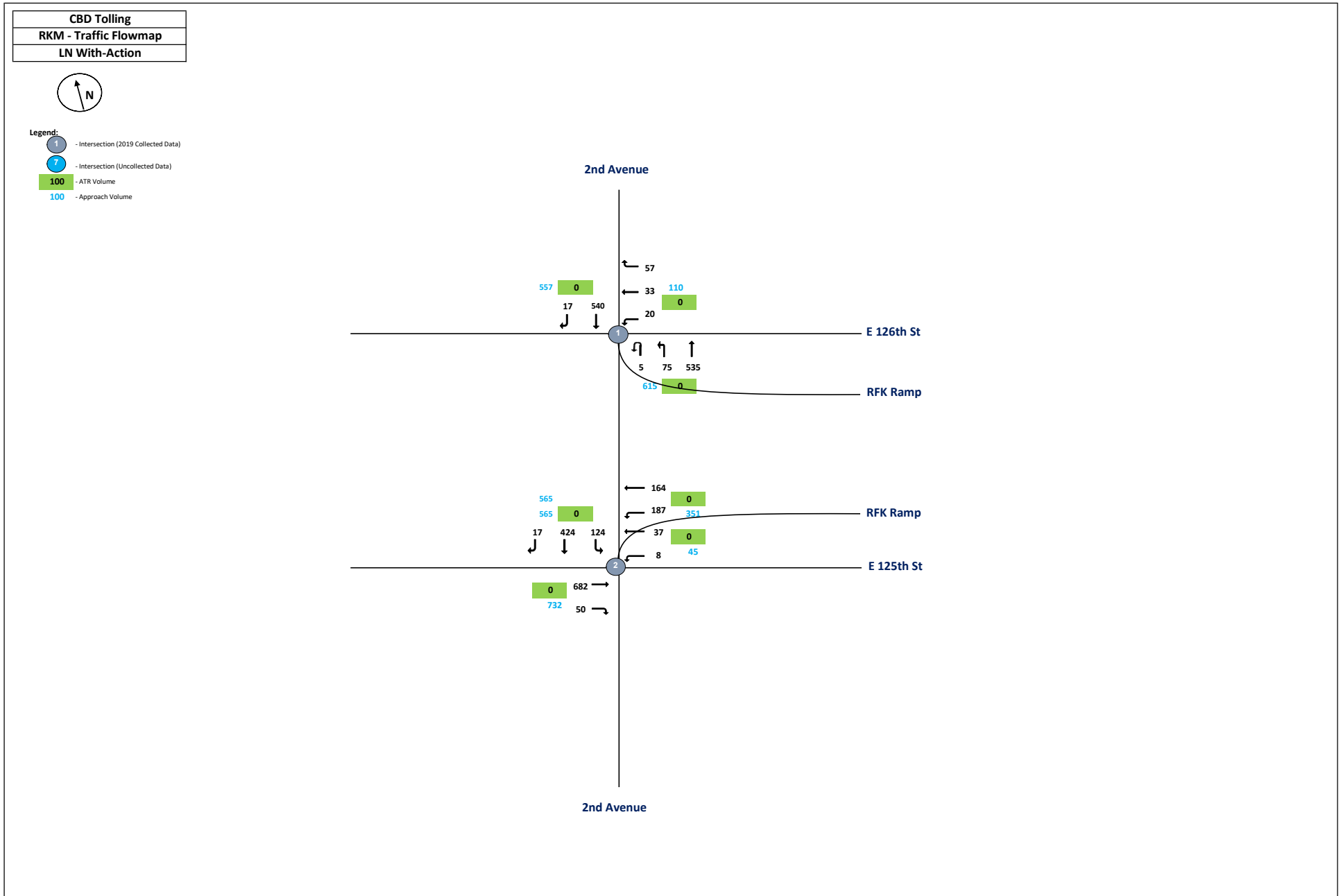
Intersection	Node	Approach	Total Vehicles						
			Inbound/Outbound						
			LN Peak Hour						
			L2	L	T	R	R2	Total	
E 126th Street and 2nd Ave 2019 (TMC-058)									
RFK Ramp	1	NW	5	75	0	535	0		
E 126th Street	1	EB	0	0	0	0	0		
E 126th Street	1	WB	0	20	33	57	0		
2nd Ave	1	NB	0	0	0	0	0		
2nd Ave	1	SB	0	0	540	17	0	667	
E 125th Street and 2nd Ave 2019 (TMC-059)	2								
E 125th Street	2	EB	0	0	682	50	0		
E 125th Street	2	WB	0	8	37	0	0		
2nd Ave	2	SW	0	187	0	164	0		
2nd Ave	2	SB	0	124	424	17	0	1693	





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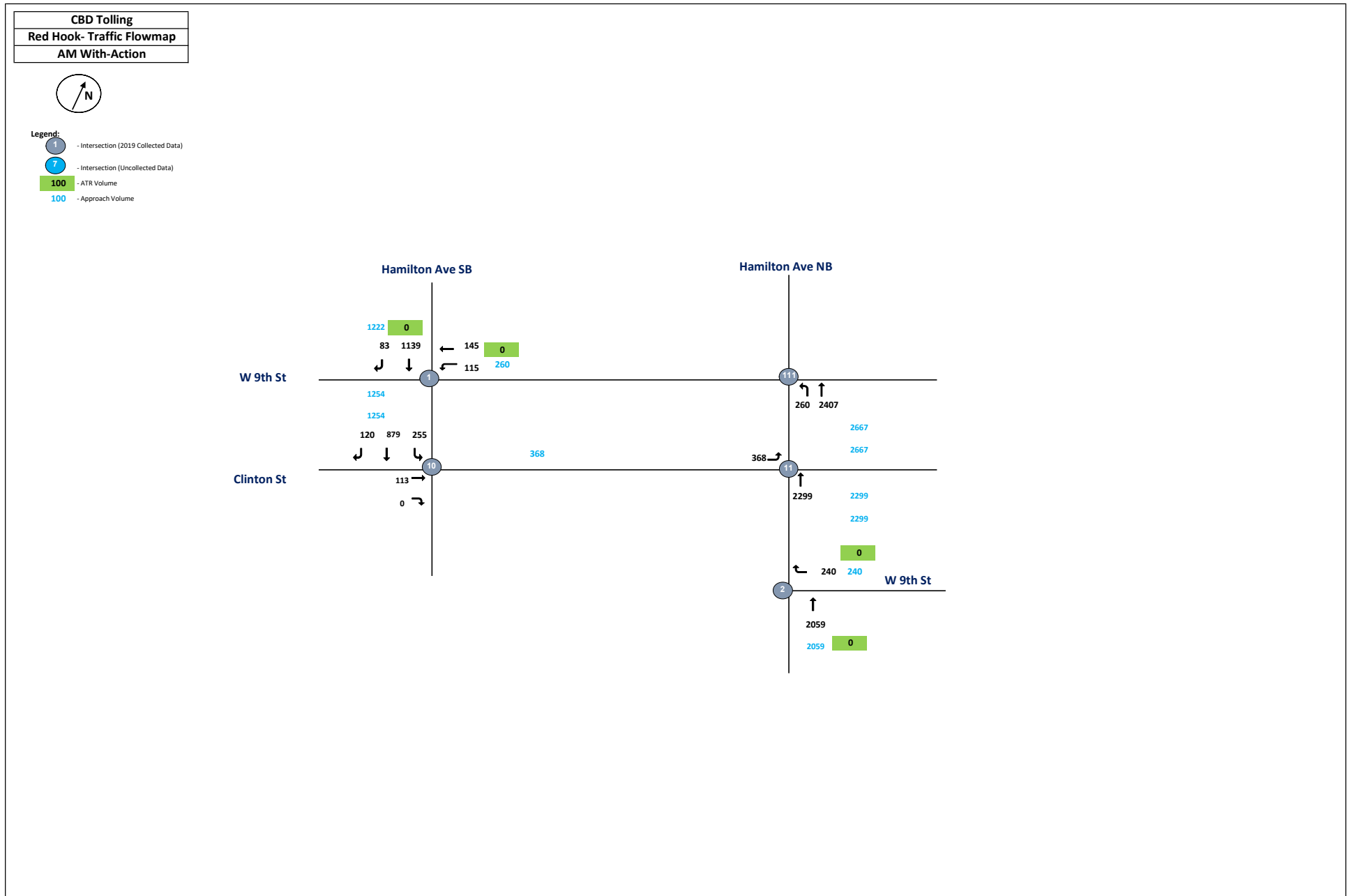
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DOT\_0046663

RH

8:00:00 AM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					Total
			AM Peak Hour					
			L2	L	T	R	R2	
Hamilton Ave SB & W 9th St 2019 (TMC-040)	1							
W 9th St	1	EB	0	0	0	0	0	
W 9th St	1	WB	0	115	145	0	0	
Hamilton Ave SB	1		0	0	0	0	0	
Hamilton Ave SB	1	SB	0	0	1139	83	0	1482
Hamilton Ave SB & W 9th St 2019 (TMC-040)	10							
Clinton Avenue	10	EB	0	0	113	0	0	
Clinton Avenue	10	WB	0	0	0	0	0	
Hamilton Ave SB	10		0	0	0	0	0	
Hamilton Ave SB	10	SB	0	255	879	120	0	1367
Hamilton Ave SB & W 9th St 2019 (TMC-040)	11							
Clinton Avenue	11	EB	0	368	0	0	0	
Clinton Avenue	11		0	0	0	0	0	
Hamilton Ave	11	NB	0	0	2299	0	0	
Hamilton Ave	11		0	0	0	0	0	2667
Hamilton Ave SB & W 9th St 2019 (TMC-040)	111							
W 9th St	111	EB	0	0	0	0	0	
W 9th St	111	WB	0	0	0	0	0	
Hamilton Ave	111	NB	0	260	2407	0	0	
-	111	SB	0	0	0	0	0	2667
Hamilton Ave NB & W 9th St 2019 (TMC-041)	2							
W 9th St	2	EB	0	0	0	0	0	
W 9th St	2	WB	0	0	0	240	0	
Hamilton Ave	2	NB	0	0	2059	0	0	
Hamilton Ave	2	SB	0	0	0	0	0	2299



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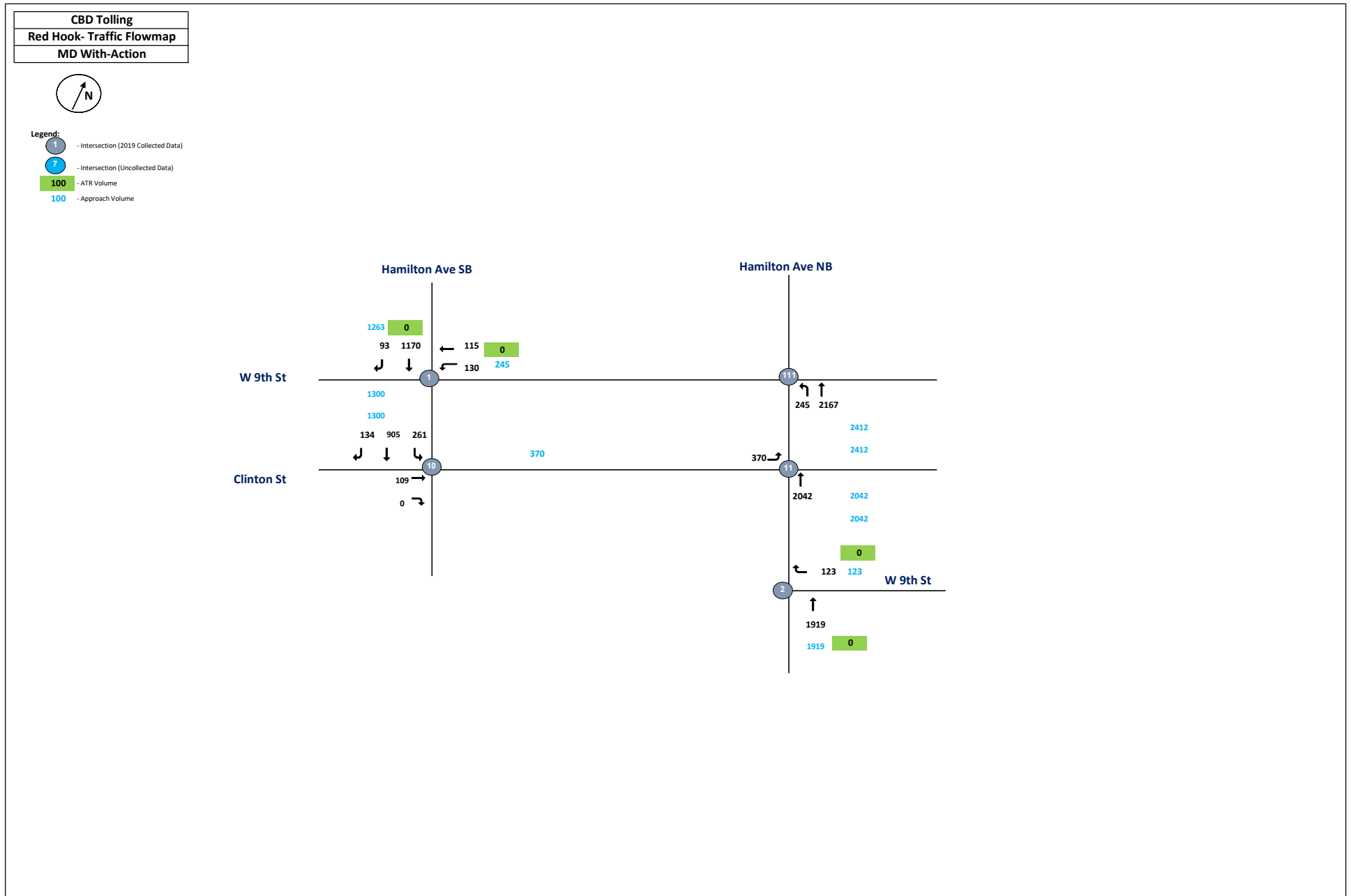
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RH

1:00:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					Total
			MD Peak Hour					
			L2	L	T	R	R2	
Hamilton Ave SB & W 9th St 2019 (TMC-040)	1							
W 9th St	1	EB	0	0	0	0	0	
W 9th St	1	WB	0	130	115	0	0	
Hamilton Ave SB	1		0	0	0	0	0	
Hamilton Ave SB	1	SB	0	0	1170	93	0	1508
Hamilton Ave SB & W 9th St 2019 (TMC-040)	10							
Clinton Avenue	10	EB	0	0	109	0	0	
Clinton Avenue	10	WB	0	0	0	0	0	
Hamilton Ave SB	10		0	0	0	0	0	
Hamilton Ave SB	10	SB	0	261	905	134	0	1409
Hamilton Ave SB & W 9th St 2019 (TMC-040)	11							
Clinton Avenue	11	EB	0	370	0	0	0	
Clinton Avenue	11		0	0	0	0	0	
Hamilton Ave	11	NB	0	0	2042	0	0	
Hamilton Ave	11		0	0	0	0	0	2412
Hamilton Ave SB & W 9th St 2019 (TMC-040)	111							
W 9th St	111	EB	0	0	0	0	0	
W 9th St	111	WB	0	0	0	0	0	
Hamilton Ave	111	NB	0	245	2167	0	0	
-	111	SB	0	0	0	0	0	2412
Hamilton Ave NB & W 9th St 2019 (TMC-041)	2							
W 9th St	2	EB	0	0	0	0	0	
W 9th St	2	WB	0	0	0	123	0	
Hamilton Ave	2	NB	0	0	1919	0	0	
Hamilton Ave	2	SB	0	0	0	0	0	2042





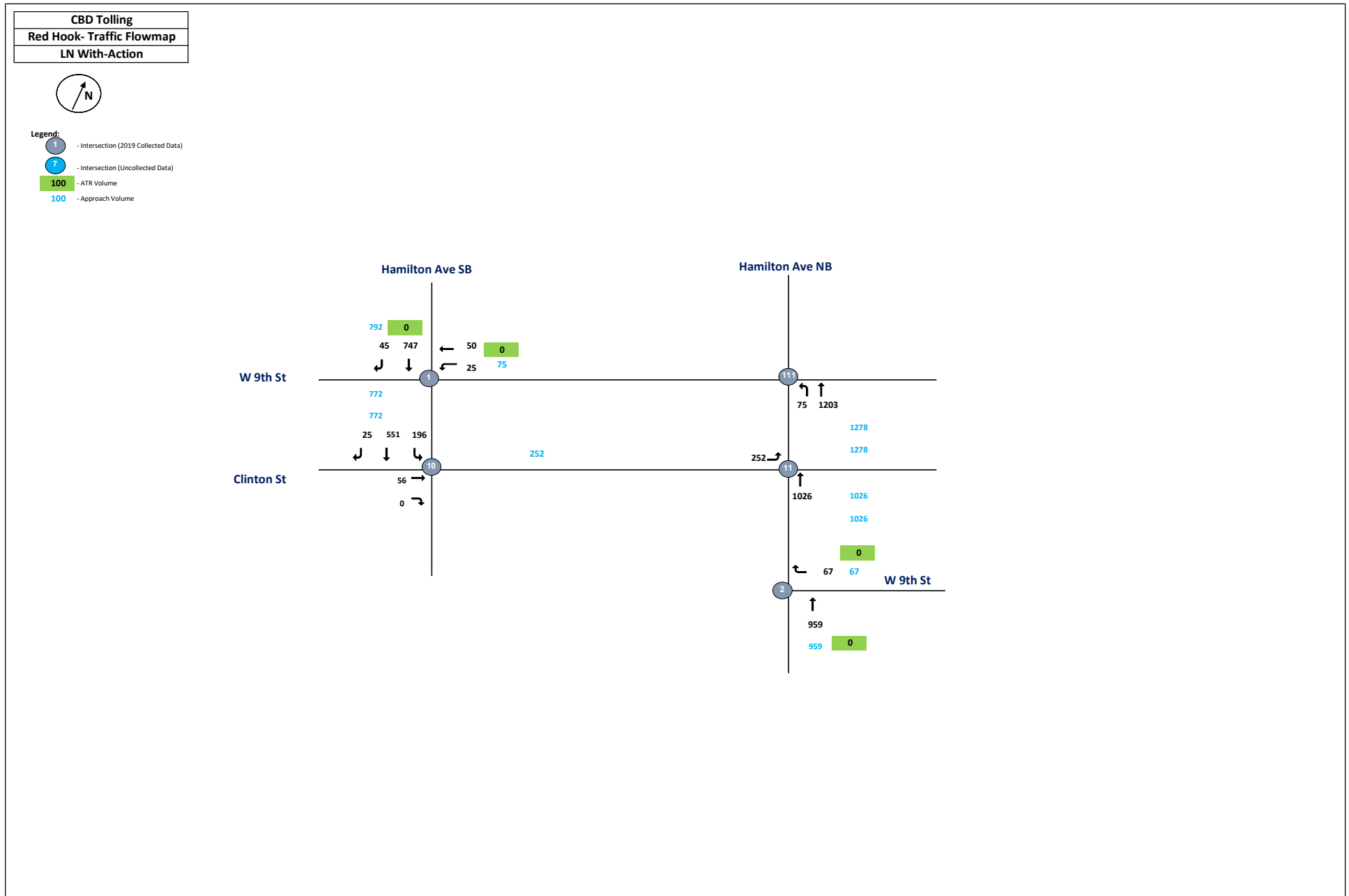
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RH

9:00:00 PM

Intersection	Node	Approach	Total Vehicles						
			Inbound/Outbound						
			LN Peak Hour						
			L2	L	T	R	R2	Total	
Hamilton Ave SB & W 9th St 2019 (TMC-040)	1								
W 9th St	1	EB	0	0	0	0	0		
W 9th St	1	WB	0	25	50	0	0		
Hamilton Ave SB	1		0	0	0	0	0		
Hamilton Ave SB	1	SB	0	0	747	45	0	867	
Hamilton Ave SB & W 9th St 2019 (TMC-040)	10								
Clinton Avenue	10	EB	0	0	56	0	0		
Clinton Avenue	10	WB	0	0	0	0	0		
Hamilton Ave SB	10		0	0	0	0	0		
Hamilton Ave SB	10	SB	0	196	551	25	0	828	
Hamilton Ave SB & W 9th St 2019 (TMC-040)	11								
Clinton Avenue	11	EB	0	252	0	0	0		
Clinton Avenue	11		0	0	0	0	0		
Hamilton Ave	11	NB	0	0	1026	0	0		
Hamilton Ave	11		0	0	0	0	0	1278	
Hamilton Ave SB & W 9th St 2019 (TMC-040)	111								
W 9th St	111	EB	0	0	0	0	0		
W 9th St	111	WB	0	0	0	0	0		
Hamilton Ave	111	NB	0	75	1203	0	0		
-	111	SB	0	0	0	0	0	1278	
Hamilton Ave NB & W 9th St 2019 (TMC-041)	2								
W 9th St	2	EB	0	0	0	0	0		
W 9th St	2	WB	0	0	0	67	0		
Hamilton Ave	2	NB	0	0	959	0	0		
Hamilton Ave	2	SB	0	0	0	0	0	1026	



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UES

9:00:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			LN Peak Hour					
			L2	L	T	R	R2	Total
60th Street & Queensboro Bridge Exit <b>2019 (TMC-022)</b>	<b>1</b>							
60th Street	1	EB	0	0	10	0	0	
60th Street	1	WB	0	0	0	0	0	
Queensboro Bridge Exit	1	NB	0	9	79	273	0	
	1	SB	0	0	0	0	0	<b>371</b>
60th Street & 3rd Ave <b>2019 (TMC-023)</b>	<b>2</b>							
	2	EB	0	0	0	0	0	
60th Street	2	WB	0	0	219	30	0	
3rd Ave	2	NB	0	70	932	0	0	
	2	SB	0	0	0	0	0	<b>1251</b>
60th St & York Ave <b>2019 (TMC-024)</b>	<b>3</b>							
60th St	3	EB	0	228	0	25	0	
60th St	3	WB	0	0	0	0	0	
York Ave	3	NB	0	0	475	0	0	
York Ave	3	SB	0	0	378	0	0	<b>1106</b>
59th St & 2nd Ave <b>2019 (TMC-025)</b>								
Queensboro Bridge Exit (SWB)	<b>4</b>							
59th St	4	EB	0	0	181	120	94	
	4	WB	0	0	0	0	0	
	4	NB	0	0	0	0	0	
2nd Ave	4	SB	227	6	741	0	0	<b>1369</b>
60th Street & 2nd Ave <b>2019 (TMC-026)</b>	<b>5</b>	WB(bridge)						
Queensboro Bridge Exit (NWB)	<b>5</b>	NW	160	150	0	0	0	
60th St	5	EB	0	0	0	0	0	
60th St	5	WB	0	5	5	0	0	
	5	NB	0	0	0	0	0	
2nd Ave	5	SB	14	0	809	94	0	<b>927</b>

UES

9:00:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			LN Peak Hour					
			L2	L	T	R	R2	Total
60th St & 1st Ave <b>2019 (TMC-027)</b>	<b>6</b>							
60th Ave	6	EB	0	116	167	0	0	
	6	WB	0	0	0	0	0	
1st Ave	6	NB	0	0	1116	86	0	
	6	SB	0	0	0	0	0	<b>1485</b>
60th St & Lexington Ave <b>2019 (TMC-028)</b>	<b>7</b>							
	7	EB	0	0	0	0	0	
60th St	7	WB	0	64	225	0	0	
	7	NB	0	0	0	0	0	
Lexington Ave	7	SB	0	0	743	47	0	<b>1079</b>
60th St & Park Ave <b>2019 (TMC-029)</b>	<b>8</b>							
	8	EB	0	0	0	0	0	
60th St	8	WB	0	0	237	35	0	
Park Ave	8	NB	0	50	499	0	0	
Park Ave	8	SB	0	0	0	0	0	<b>821</b>
60th St & Park Ave <b>2019 (TMC-029)</b>	<b>888</b>							
	888	EB	0	0	0	0	0	
60th St	888	WB	0	97	190	0	0	
Park Ave	888	NB	0	0	0	0	0	
Park Ave	888	SB	0	0	808	96	0	<b>1191</b>
60th St & Madison Ave <b>2019 (TMC-030)</b>	<b>9</b>							
	9	EB	0	0	0	0	0	
60th St	9	WB	0	0	234	52	0	
Madison Ave	9	NB	0	73	810	0	0	
	9	SB	0	0	0	0	0	<b>1169</b>

UES

9:00:00 PM

Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			LN Peak Hour					
			L2	L	T	R	R2	Total
62nd St & Queensboror Bridge Exit <b>2019 (TMC-031)</b>	<b>10</b>							
62nd St	10	EB	0	7	99	0	0	
	10	WB	0	0	0	0	0	
Queensboro Bridge Exit	10	NB	0	0	1094	834	0	
	10	SB	0	0	0	0	0	<b>2034</b>
60th St & 5th Ave <b>2019 (TMC-032)</b>	<b>11</b>							
	11	EB	0	0	0	0	0	
60th St	11	WB	0	152	155	0	0	
	11	NB	0	0	0	0	0	
5th Ave	11	SB	0	0	599	194	0	<b>1100</b>
63rd St & York Ave <b>2019 (TMC-033)</b>	<b>12</b>							
	12	EB	0	0	0	0	0	
63rd St	12	WB	0	234	228	21	0	
York Ave	12	NB	0	0	166	285	0	
York Ave	12	SB	0	325	338	49	0	<b>1646</b>
53rd St & FDR Drive <b>2019 (TMC-034)</b>	<b>13</b>							
	13	EB	0	0	0	0	0	
53rd St	13	SW	0	0	0	315	0	
	13	NB	0	0	0	0	0	
FDR Drive	13	SB	0	0	0	131	0	<b>446</b>
61st St & 5th Ave <b>2019 (TMC-035)</b>	<b>14</b>							
	14	EB	0	0	0	0	0	
61st St	14	WB	0	59	0	0	0	
	14	NB	0	0	0	0	0	
5th Ave	14	SB	0	0	734	0	0	<b>793</b>

UES

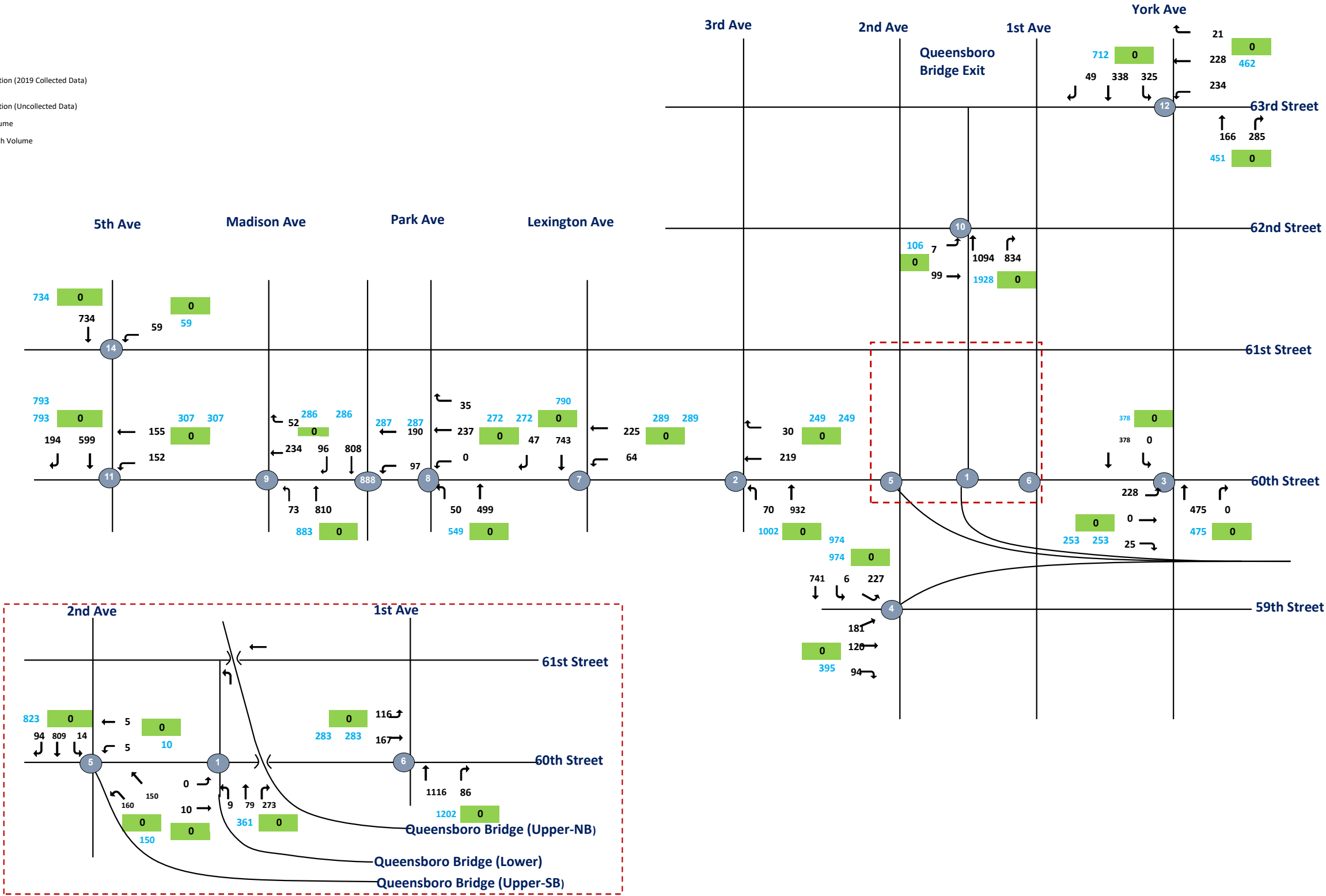
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Intersection	Node	Approach	Total Vehicles					
			Inbound/Outbound					
			LN Peak Hour					
			L2	L	T	R	R2	Total
65th St & 5th Ave <b>2019 (TMC-036)</b>	<b>15</b>							
65th St	15	EB	0	0	646	198	0	
	15	WB	0	0	0	0	0	
	15	NB	0	0	0	0	0	
5th Ave	15	SB	0	69	668	0	0	<b>1581</b>
66th St & 5th Ave <b>2019 (TMC-037)</b>	<b>16</b>							
	16	EB	0	0	0	0	0	
66th St	16	WB	0	55	439	0	0	
	16	NB	0	0	0	0	0	
5th Ave	16	SB	0	0	682	242	0	<b>1418</b>
79th St & 5th Ave <b>2019 (TMC-038)</b>	<b>17</b>							
79th St	17	EB	0	0	336	105	0	
79th St	17	WB	0	50	353	0	0	
	17	NB	0	0	0	0	0	
5th Ave	17	SB	0	56	576	64	0	<b>1540</b>
71st St & York Ave <b>2019 (TMC-039)</b>	<b>18</b>							
	18	EB	0	0	0	0	0	
71st St	18	WB	0	76	176	76	0	
York Ave	18	NB	0	9	151	0	0	
York Ave	18	SB	0	0	224	31	0	<b>743</b>

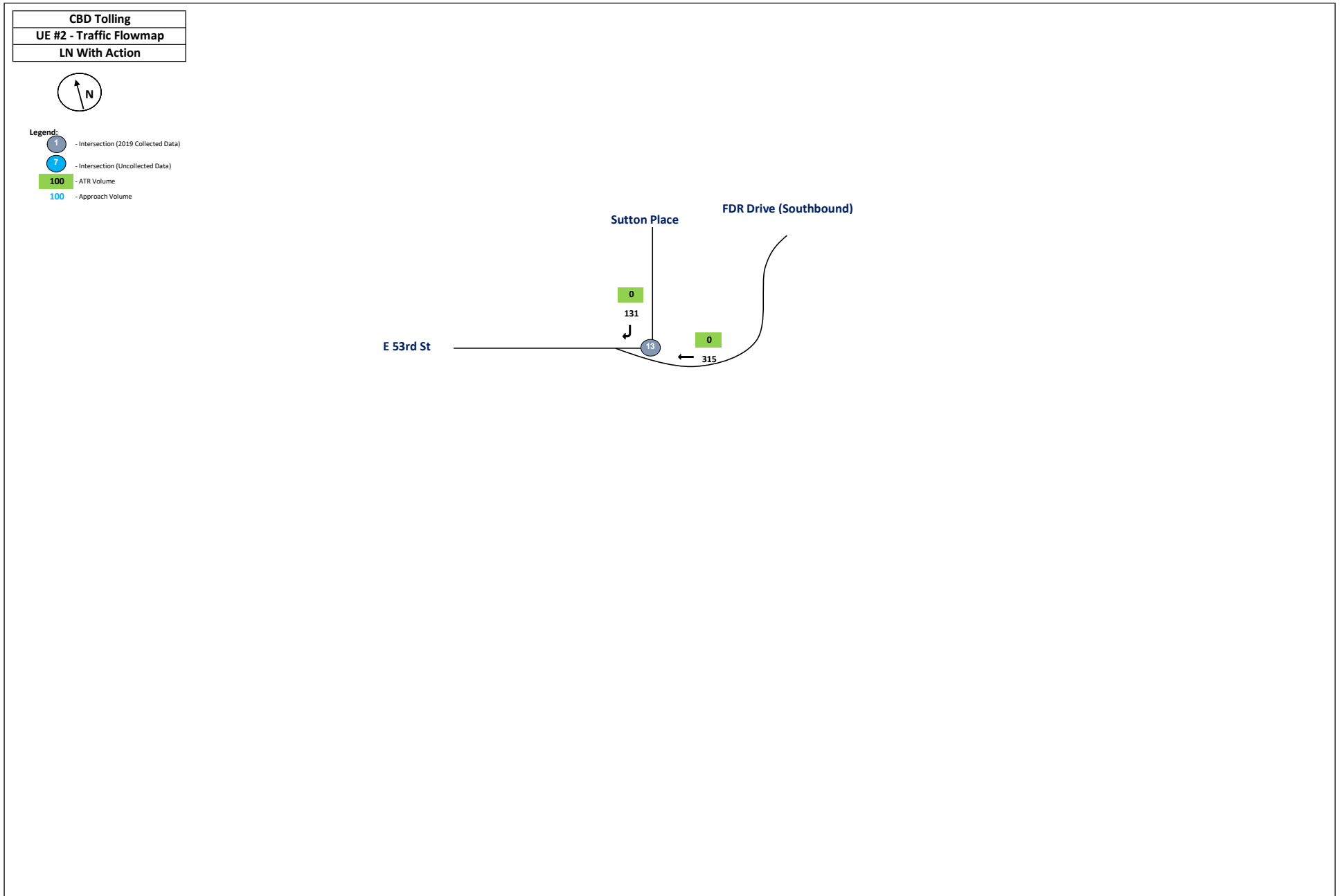
CBD Tolling  
UE #1 - Traffic Flowmap  
LN With Action



- Legend:
- 1 - Intersection (2019 Collected Data)
  - 7 - Intersection (Uncollected Data)
  - 100 - ATR Volume
  - 100 - Approach Volume

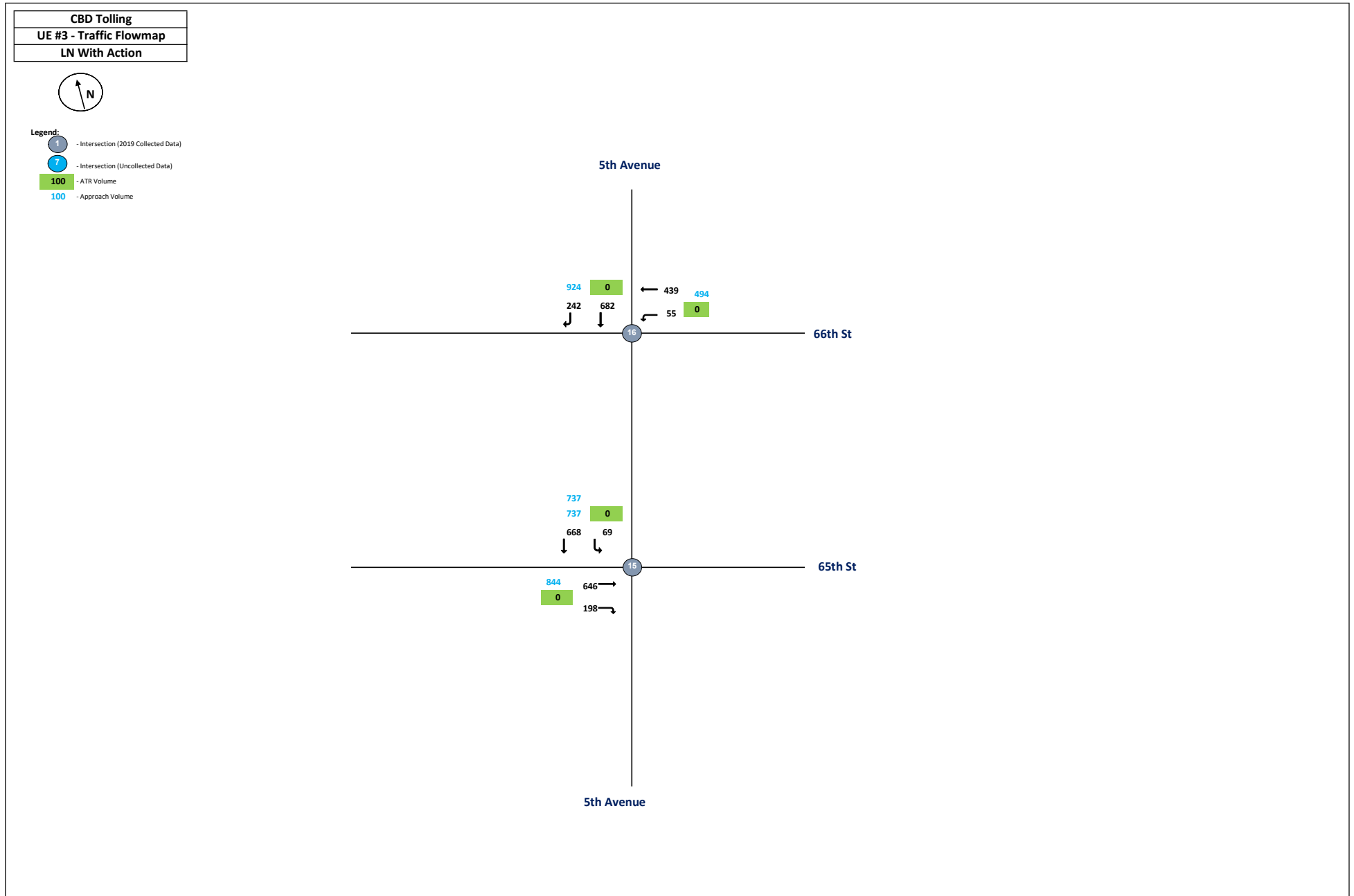


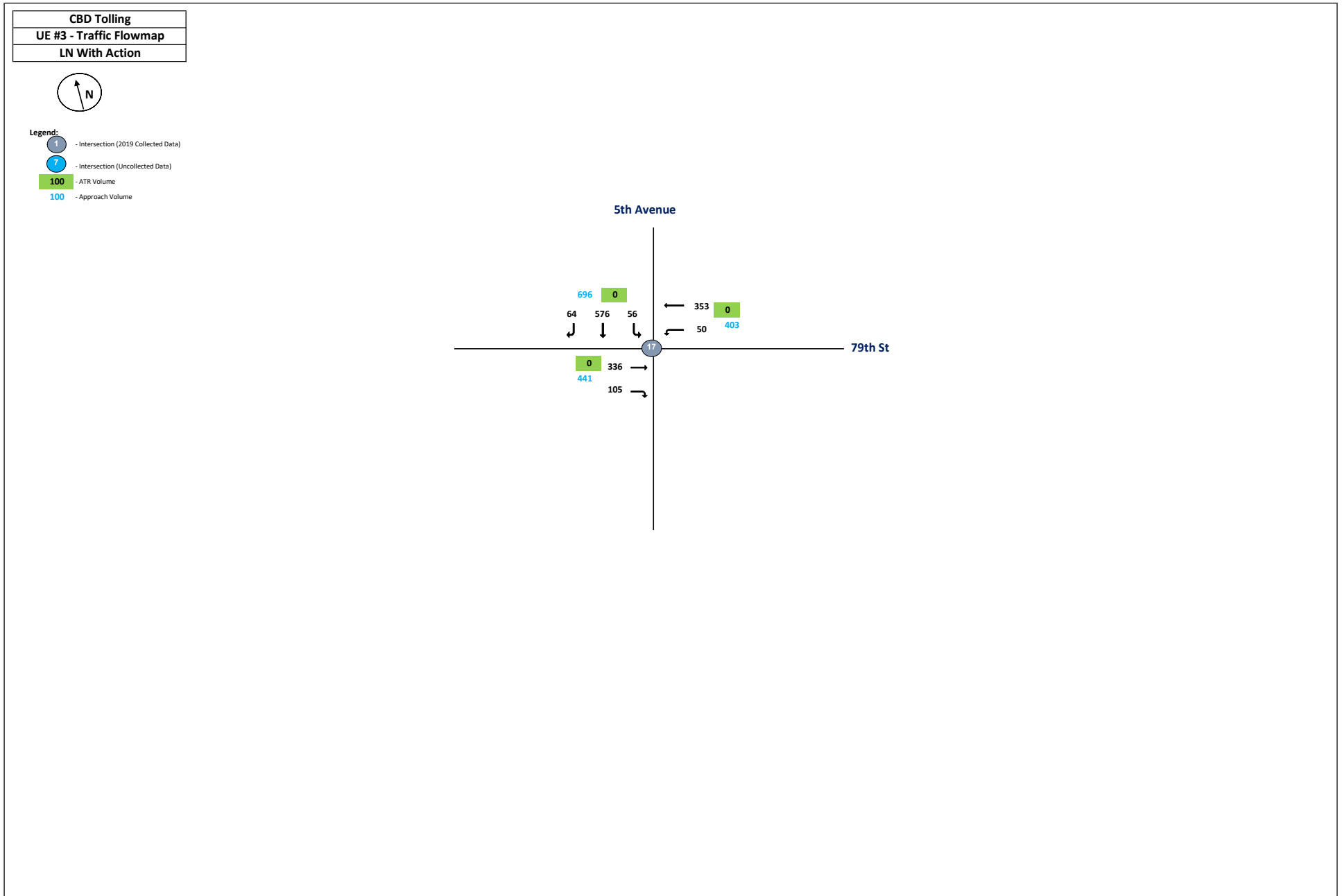




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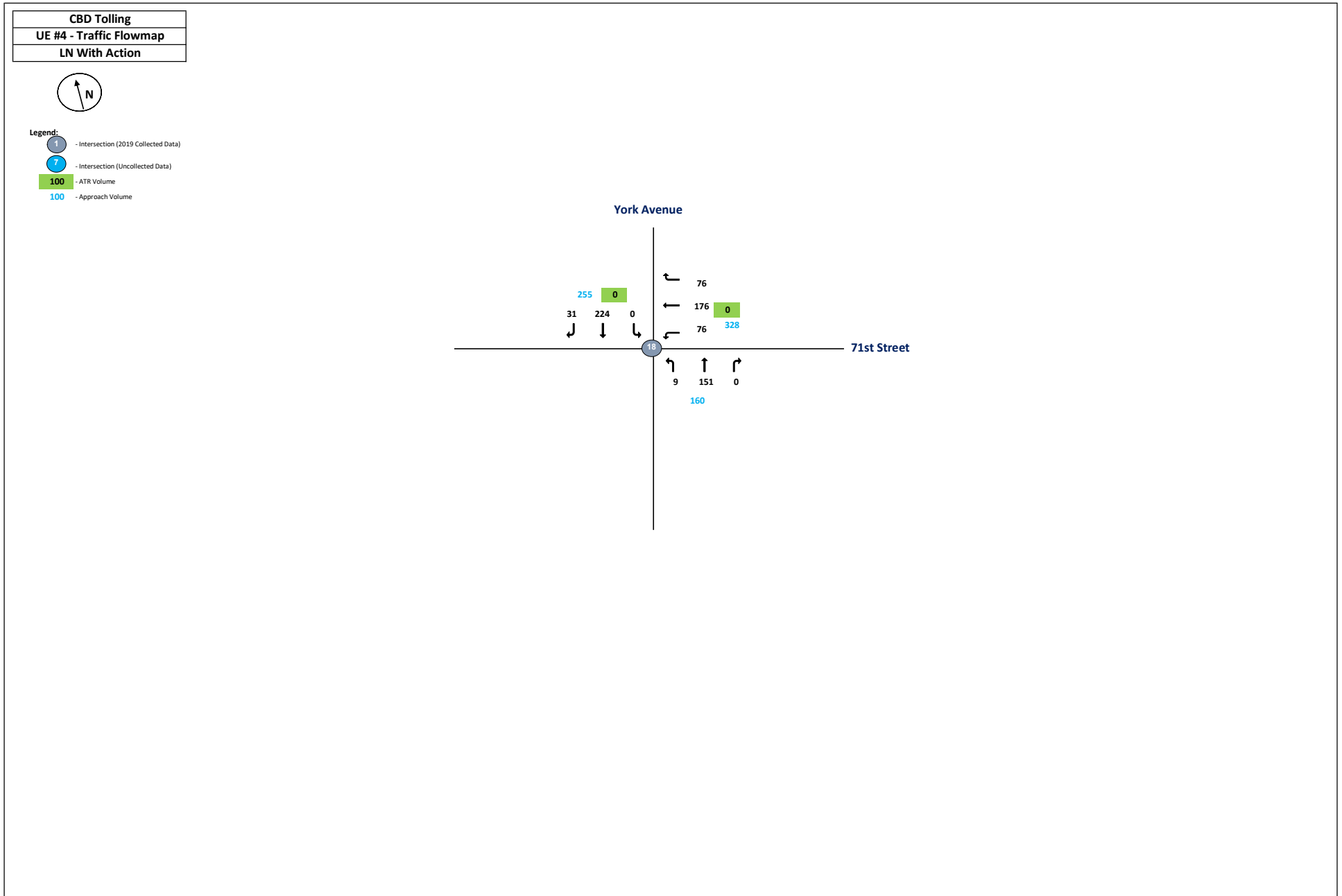
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CENTRAL BUSINESSDISTRICT (CBD) TOLLING PROGRAM

# Appendix 4B.4, Transportation: Traffic LOS Adopted Toll Structure

2024

Downtown Brooklyn Study Area - With-Action - AM Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	Flatbush Avenue and Tillary Street	NB	NBL	L	L	570	1.17	146.1	F	~256	#420
			NBT	T	T	947	1.21	137.8	F	~516	#585
			NBR	R	R	259	0.46	4.7	A	-	35
		SB	SBT	T	T	631	0.64	40.7	D	176	219
			SBR	R	R	79	0.30	37.4	D	52	99
		EB	EBL	L	L	143	0.93	99.9	F	137	#234
			EBT	T	T	618	0.84	49.1	D	280	326
			EBR	R	R	230	0.86	65.1	E	194	#322
		WB	WBL	L	L	230	0.77	64.9	E	105	#145
			WBT	T	T	368	0.80	48.0	D	215	291
			WBR	R	R	371	0.92	79.2	E	194	#368
		Intersection						80.3	F		
2	Adams Street and Tillary Street	NB	NBL	L	L	0	-	-	-	-	-
			NBT	T	T	617	0.83	48.7	D	272	328
			NBR	T	R	59	0.70	50.3	D	158	#259
			NBR2	R	R2	150	-	-	-	-	-
		SB	SBL	L	L	624	0.90	56.7	E	285	#336
			SBT	T	T	854	0.63	23.6	C	270	340
			SBR	R	R	15	0.03	8.5	A	5	13
		EB	EBL	L	L	0	-	-	-	-	-
			EBT	T	T	196	0.35	36.9	D	75	105
			EBR	R	R	90	-	-	-	-	-
		WB	WBL	L	L	138	0.80	70.9	E	115	#223
			WBT	T	T	227	0.35	37.2	D	86	121
			WBR	R	R	0	-	-	-	-	-
			WBR2	R	R2	27	0.07	32.2	C	16	41
		Intersection						42.3	D		
3	Old Fulton Street and Vine Street	NB	NBL	L	L	1139	1.00	54.2	D	~344	#495
			NBT	T	T	178	0.34	20.1	C	81	124
		SB	SBT	T	T	654	0.56	62.3	E	126	m8
		Intersection						53.7	D		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer

#: the volume for the 95th percentile cycle exceeds capacity

m: volume for the 95th percentile queue is metered by an upstream signal

Downtown Brooklyn Study Area - With-Action - LN Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	Flatbush Avenue and Tillary Street	NB	NBL	L	L	465	1.12	132.5	F	~191	#355
			NBT	T	T	562	1.07dl	32.7	C	183	227
			NBR	R	R	405	0.52	6.8	A	32	113
		SB	SBT	T	T	713	0.65	40.8	D	204	242
			SBR	R	R	44	0.15	33.8	C	31	58
		EB	EBL	L	L	78	0.43	54.8	D	57	110
			EBT	T	T	555	0.70	41.5	D	237	280
			EBR	R	R	160	0.49	38.9	D	122	178
		WB	WBL	L	L	243	0.68	58.2	E	103	150
			WBT	T	T	399	0.59	38.4	D	180	218
			WBR	R	R	187	0.59	43.5	D	147	213
		Intersection						42.4	D		
2	Adams Street and Tillary Street	NB	NBL	L	L	0	-	-	-	-	-
			NBT	T	T	475	0.59	39.1	D	174	233
			NBR	T	R	44	0.40	37.0	D	98	144
			NBR2	R	R2	86	-	-	-	-	-
		SB	SBL	L	L	427	0.62	41.4	D	178	214
			SBT	T	T	712	0.54	21.7	C	224	261
			SBR	R	R	0	-	-	-	-	-
		EB	EBL	L	L	0	-	-	-	-	-
			EBT	T	T	115	0.16	34.1	C	38	59
			EBR	R	R	45	-	-	-	-	-
		WB	WBL	L	L	110	0.51	45.3	D	88	138
			WBT	T	T	114	0.18	34.6	C	44	64
			WBR	R	R	0	-	-	-	-	-
			WBR2	R	R2	24	0.06	33.5	C	14	37
		Intersection						33.3	C		
3	Old Fulton Street and Vine Street	NB	NBL	L	L	1265	0.84	26.8	C	442	541
			NBT	T	T	137	0.18	12.7	B	55	86
		SB	SBT	T	T	284	0.33	13.8	B	16	m20
		Intersection						23.3	C		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer  
#: the volume for the 95th percentile cycle exceeds capacity  
m: volume for the 95th percentile queue is metered by an upstream signal

Little Dominican Republic Area - With Action - AM Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	W 179th St & Broadway	NB	NBL	L	L	55	0.15	11.1	B	16	33
			NBT	T	T	210	0.18	10.3	B	31	50
		SB	SBT	T	T	220	0.44	23.0	C	80	107
			SBR	TR	R	80	-	-	-	-	-
		WB	WBL	TR	L	45	-	-	-	-	-
			WBT		T	163	0.75	41.8	D	144	#269
			WBR		R	50	-	-	-	-	-
		Intersection						24.8	C		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer  
#: the volume for the 95th percentile cycle exceeds capacity  
m: volume for the 95th percentile queue is metered by an upstream signal



Little Dominican Republic Area - With Action - MD Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	W 179th St & Broadway	NB	NBL	L	L	140	0.36	15.6	B	44	78
			NBT	T	T	330	0.25	11.4	B	54	80
		SB	SBT	T	T	220	0.44	24.1	C	82	120
			SBR	TR	R	105	-	-	-	-	-
		WB	WBL	TR	L	40	-	-	-	-	-
			WBT		T	257	0.88	50.9	D	213	#362
			WBR		R	50	-	-	-	-	-
		Intersection						27.9	C		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer  
#: the volume for the 95th percentile cycle exceeds capacity  
m: volume for the 95th percentile queue is metered by an upstream signal

Little Dominican Republic Area - With Action - PM Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	W 179th St & Broadway	NB	NBL	L	L	135	0.30	14.1	B	39	71
			NBT	T	T	340	0.27	11.6	B	57	82
		SB	SBT	T	T	230	0.41	23.7	C	80	120
			SBR	TR	R	100	-	-	-	-	-
		WB	WBL	TR	L	35	-	-	-	-	-
			WBT		T	244	0.80	41.6	D	193	#339
			WBR		R	60	-	-	-	-	-
		Intersection						24.3	C		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer  
#: the volume for the 95th percentile cycle exceeds capacity  
m: volume for the 95th percentile queue is metered by an upstream signal

Lower East Side Study Area - With Action - AM Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	Park Row/Chatham Square & Worth/Oliver St & Mott St	NB	NBL	LT	L	10	-	-	-	-	-
			NBT		T	355	0.76	39.1	D	197	#331
			NBR2	R	R2	154	0.42	28.8	C	85	129
		SB	SBL	T	T	75	0.69	66.7	E	46	#106
			SBT	TR	T	50	0.15	23.6	C	28	58
			SBR		R	10	-	-	-	-	-
		EB	EBT	TR	T	20	0.09	22.0	C	15	33
			EBR		R	10	-	-	-	-	-
		WB	WBL	L	L	105	0.36	30.1	C	74	119
			WBT	T	T	15	0.25	23.8	C	43	70
			WBR	TR	R	140	-	-	-	-	-
		SWB	SWL2	LR	L2	55	-	-	-	-	-
			SWL		L	0	0.24	33.0	C	33	62
			SWR		R	0	-	-	-	-	-
		Intersection						34.4	C		
2	Chatham Square & E Broadway	NB	NBL	L	L	95	0.20	16.4	B	39	66
			NBR	R	R	30	0.07	14.9	B	12	26
		EB	EBT	T	T	169	0.16	18.4	B	51	m76
			EBR	R	R	135	0.29	56.9	E	89	m138
		WB	WBL	L	L	120	0.35	12.1	B	47	74
			WBT	T	T	165	0.16	7.0	A	32	44
		Intersection						21.7	C		
3	Chatham Square/Bowery & Divison St	NB	NBL	L	L	140	0.58	41.5	D	90	138
			NBR	T	T	250	0.55	19.8	B	110	171
		EB	EBT	T	T	194	0.24	6.1	A	12	18
			EBR2	TR	R2	5	-	-	-	-	-
		WB	WBL	LT	L	5	-	-	-	-	-
			WBT	T	T	145	0.18	19.4	B	31	54
		Intersection						20.5	C		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer  
#: the volume for the 95th percentile cycle exceeds capacity  
m: volume for the 95th percentile queue is metered by an upstream signal

Lower East Side Study Area - With Action - MD Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	Park Row/Chatham Square & Worth/Oliver St & Mott St	NB	NBL	LT	L	10	-	-	-	-	-
			NBT		T	215	0.49	29.3	C	113	186
			NBR2	R	R2	154	0.42	28.9	C	85	129
		SB	SBL	T	T	145	0.75	65.5	E	90	#167
			SBT	TR	T	75	0.22	24.6	C	40	79
			SBR		R	10	-	-	-	-	-
		EB	EBT	TR	T	20	0.11	22.2	C	20	41
			EBR		R	20	-	-	-	-	-
		WB	WBL	L	L	64	0.20	30.1	C	36	84
			WBT	T	T	20	0.17	26.8	C	31	50
			WBR	TR	R	89	-	-	-	-	-
		SWB	SWL2	LR	L2	40	-	-	-	-	-
			SWL		L	0	0.17	31.8	C	23	48
			SWR		R	0	-	-	-	-	-
		Intersection						34.7	C		
2	Chatham Square & E Broadway	NB	NBL	L	L	85	0.15	15.8	B	31	62
			NBR	R	R	35	0.08	14.9	B	14	30
		EB	EBT	T	T	174	0.17	17.0	B	53	m70
			EBR	R	R	185	0.37	85.3	F	122	m181
		WB	WBL	L	L	130	0.34	12.7	B	48	131
			WBT	T	T	88	0.08	6.7	A	15	30
		Intersection						33.1	C		
3	Chatham Square/Bowery & Divison St	NB	NBL	L	L	110	0.43	36.6	D	66	112
			NBR	T	T	225	0.41	16.3	B	81	140
		EB	EBT	T	T	199	0.24	6.0	A	12	19
			EBR2	TR	R2	10	-	-	-	-	-
		WB	WBL	LT	L	5	-	-	-	-	-
			WBT	T	T	108	0.13	18.8	B	23	42
		Intersection						17.1	B		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer  
#: the volume for the 95th percentile cycle exceeds capacity  
m: volume for the 95th percentile queue is metered by an upstream signal

Lower East Side Study Area - With Action - PM Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	Park Row/Chatham Square & Worth/Oliver St & Mott St	NB	NBL	LT	L	5	-	-	-	-	-
			NBT		T	175	0.37	26.8	C	85	145
			NBR2	R	R2	199	0.54	32.6	C	114	167
		SB	SBL	T	T	165	0.62	42.3	D	83	156
			SBT	TR	T	95	0.24	24.7	C	48	88
			SBR		R	5	-	-	-	-	-
		EB	EBT	TR	T	25	0.09	22.1	C	17	37
			EBR		R	10	-	-	-	-	-
		WB	WBL	L	L	66	0.21	32.8	C	46	86
			WBT	T	T	20	0.20	29.8	C	43	70
			WBR	TR	R	110	-	-	-	-	-
		SWB	SWL2	LR	L2	55	-	-	-	-	-
			SWL		L	0	0.24	33.0	C	33	65
			SWR		R	0	-	-	-	-	-
		Intersection						31.5	C		
2	Chatham Square & E Broadway	NB	NBL	L	L	105	0.20	16.3	B	41	73
			NBR	R	R	45	0.09	15.0	B	18	36
		EB	EBT	T	T	219	0.20	21.0	C	74	85
			EBR	R	R	225	0.39	84.8	F	138	215
		WB	WBL	L	L	125	0.32	15.7	B	61	m125
			WBT	T	T	91	0.08	8.4	A	24	m33
		Intersection						34.5	C		
3	Chatham Square/Bowery & Divison St	NB	NBL	L	L	155	0.62	43.0	D	100	151
			NBR	T	T	395	0.74	26.5	C	198	297
		EB	EBT	T	T	254	0.31	6.8	A	17	23
			EBR2	TR	R2	10	-	-	-	-	-
		WB	WBL	LT	L	5	-	-	-	-	-
			WBT	T	T	61	0.08	18.3	B	13	28
		Intersection						22.9	C		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer  
#: the volume for the 95th percentile cycle exceeds capacity  
m: volume for the 95th percentile queue is metered by an upstream signal

Long Island City Study Area - Action - AM Peak Hour												
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)	
1a	Pulaski Bridge / 11th Street & Jackson Avenue	NB	NBL	LT	L	71	-	-	-	-	-	
			NBT	T	T	701	1.16	122.5	F	~440	#520	
			NBR	R	R	406	0.69	44.8	D	192	234	
		SB	SBT	T	T	444	0.68	8.7	A	23	27	
			SBR	TR	R	64	-	-	-	-	-	
		EB	EBL	LT	L	25	-	-	-	-	-	
			EBT	T	T	55	0.19	36.7	D	32	50	
		WB	WBL	L	L	465	0.66	43.8	D	170	229	
			WBT	T	T	215	0.30	14.7	B	100	137	
Intersection	Intersection							59.1	E			
1b	11th Street & 48TH Avenue	NB	NBL	L	L	65	0.40	2.9	A	2	m2	
			NBT	T	T	661	0.63	16.0	B	12	m10	
		SB	SBT	T	T	498	0.66	39.2	D	200	264	
			SBR	TR	R	15	-	-	-	-	-	
		WB	WBL	LTR	L	10	-	-	-	-	-	
			WBT		T	25	0.08	17.8	B	24	43	
			WBR		R	10	-	-	-	-	-	
		Intersection	Intersection						24.4	C		
2	50TH Avenue @ Vernon Blvd	NB	NBT	T	T	207	0.35	14.0	B	51	97	
			NBR	R	R	13	0.03	10.8	B	3	12	
		SB	SBL	LT	L	44	-	-	-	-	-	
			SBT		T	163	0.50	17.7	B	59	118	
		EB	EBL	LTR	L	35	-	-	-	-	-	
			EBT		T	64	0.31	14.0	B	37	66	
			EBR		R	30	-	-	-	-	-	
		Intersection	Intersection						15.3	B		
3	Green Street & McGuinness Blvd	NB	NBT	T	T	1151	0.83	26.1	C	415	515	
			NBR	TR	R	30	-	-	-	-	-	
		SB	SBL	L	L	73	0.75	58.6	E	49	#132	
			SBT	T	T	942	0.59	17.7	B	266	314	
		EB	EBL	LTR	L	182	-	-	-	-	-	
			EBT		T	20	0.62	40.4	D	192	248	
			EBR		R	40	-	-	-	-	-	
		Intersection	Intersection						25.4	C		
4	McGuinness Blvd & Freeman Street	NB	NBT	T	T	1333	-	-	-	-	-	
		SB	SBT	T	T	1015	-	-	-	-	-	
			SBR	TR	R	115	-	-	-	-	-	
		WB	WBR	R	R	179	-	-	-	-	-	
		Intersection	Unsignalized									
5	21th Street & 49th Avenue	NB	NBL	LTR	L	35	-	-	-	-	-	
			NBT		T	90	0.57	32.9	C	88	161	
			NBR		R	40	-	-	-	-	-	
		SB	SBL	LTR	L	98	-	-	-	-	-	
			SBT		T	127	1.04	95.3	F	~179	#285	
			SBR		R	10	-	-	-	-	-	
		EB	EBL	LTR	L	36	-	-	-	-	-	
			EBT		T	132	0.46	23.8	C	90	135	
			EBR		R	10	-	-	-	-	-	
		WB	WBL	LT	L	5	-	-	-	-	-	
			WBT		T	40	0.11	17.8	B	19	39	
			WBR	R	R	310	0.91	57.4	E	179	#351	
		Intersection	Intersection						54.5	D		
7	11th Street & Borden Avenue	NB	NBL	LTR	L	16	-	-	-	-	-	
			NBT		T	66	-	-	-	-	-	
			NBR		R	16	-	-	-	-	-	
		SB	SBL	LTR	L	26	-	-	-	-	-	
			SBT		T	0	-	-	-	-	-	
			SBR		R	94	-	-	-	-	-	
		EB	EBL	LTR	L	578	-	-	-	-	-	
			EBT		T	50	-	-	-	-	-	
			EBR		R	18	-	-	-	-	-	
		WB	WBL	LTR	L	40	-	-	-	-	-	
			WBT		T	422	-	-	-	-	-	
			WBR		R	57	-	-	-	-	-	
		Intersection	Unsignalized									
8a	Van Dam Street & QMT Expy	NB	NBL	LT	L	22	-	-	-	-	-	
			NBT	T	T	297	0.41	7.0	A	16	18	
		SB	SBT	T	T	769	0.63	63.1	E	255	325	
			SBR	TR	R	17	-	-	-	-	-	
		WB	WBT	T	T	846	0.67	25.6	C	256	294	
WBR	TR	R	259	-	-	-	-	-				
Intersection	Intersection						35.3	D				
8b	Van Dam Street & Borden Avenue	NB	NBT	T	T	290	0.56	42.6	D	127	159	
			NBR	TR	R	5	-	-	-	-	-	
		SB	SBL	L	L	588	0.90	92.5	F	277	#369	
			SBT	T	T	181	0.26	3.0	A	4	6	
		EB	EBL	LTR	L	29	-	-	-	-	-	
			EBT		T	185	0.31	28.9	C	78	108	
		WB	EBR		R	15	-	-	-	-	-	
Intersection	Intersection						56.1	E				
9	Jackson Ave / Northern Blvd & Queens Plaza	NB	NBL	LT	L	0	-	-	-	-	-	
			NBT		T	199	0.50	47.3	D	95	127	
			NBR		TR	R	15	-	-	-	-	-
		SB	SBL	LT	L	15	-	-	-	-	-	
			SBT	T	T	135	0.40	39.0	D	55	76	
		EB	EBT	T	T	845	0.42	21.9	C	164	200	
			EBR	R	R	287	0.58	28.2	C	191	258	
		WB	WBL	LT	L	50	-	-	-	-	-	
			WBT	T	T	722	0.48	15.3	B	133	164	
WBR	TR		R	60	-	-	-	-	-			
Intersection	Intersection						24.2	C				
10	Thomson Avenue & Van Dam Street	NB	NBL	L	L	44	0.16	31.3	C	29	58	
			NBT	T	T	266	0.59	59.8	E	157	206	
			NBR	TRR2	R	0	-	-	-	-	-	
			NBR2		R2	25	-	-	-	-	-	
		SB	SBT	T	T	446	0.82	68.2	E	264	307	
			SBR	R	R	15	0.09	51.3	D	15	36	
		EB	EBR	R	R	110	0.11	15.3	B	32	47	
			EBR2	R2	R2	90	0.12	11.4	B	41	61	
WB	WBT	T	T	1030	0.67	41.2	D	329	383			
Intersection	Intersection						47.1	D				
11a	Thomson Avenue & Dutch Kills Street	SB	SBL	L	L	0	-	-	-	-	-	
			SBR	LR	R	0	-	-	-	-	-	
		EB	EBT	T	T	388	-	-	-	-	-	
			WBT	T	T	385	-	-	-	-	-	
		WB	WBR	R	R	896	-	-	-	-	-	
Intersection	Intersection											
11b	Thomson Avenue & Dutch Kills Street	WB	WBT	T	T	1281	-	-	-	-	-	
			WBR	R	R	721	-	-	-	-	-	
		EB	EBT	T	T	388	-	-	-	-	-	-
			Intersection Unsignalized									
12	21th Street & Queens Plaza N	NB	NBL	LT	L	0	-	-	-	-	-	
			NBT	T	T	356	0.46	17.4	B	175	247	
		SB	SBT	T	T	951	1.06	72.2	E	~899	#1154	
			SBR	R	R	350	0.45	17.0	B	179	233	
		WB	WBL	LTR	L	120	-	-	-	-	-	
			WBT		T	66	0.67	45.4	D	223	305	
			WBR		R	82	-	-	-	-	-	
		Intersection	Intersection						47.7	D		

Lower Manhattan Study Area - Build - AM Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	Trinity Place & Edgar Street	NB	NBL	LT	L	0	-	-	-	-	-
			NBT	T	T	42	0.04	9.8	A	6	14
		EB	EBL	L	L	35	0.09	20.7	C	16	35
			Intersection	Intersection				15.0	B		
2	Trinity Place & Rector Street	NB	NBT	T	T	70	0.11	10.2	B	13	23
			NBR	R	R	7	-	-	-	-	-
		EB	EBL	LT	L	100	-	-	-	-	-
			EBT		T	34	0.51	31.6	C	74	119
		Intersection	Intersection					23.7	C		
3a	HCT Entrance/Exit & West Street	NB	NBT	T	T	1024	0.71	44.4	D	328	384
			NBR2	R2	R2	444	0.28	0.5	A	-	-
		SB	SBT	T	T	1005	0.62	1.3	A	-	-
		WB	WBL	L	L	1692	0.97	53.0	D	618	#741
		Intersection	Intersection					32.6	C		
3b	HCT Exit & West Street & West Thames Street	NB	NBT	T	T	1024	0.59	1.2	A	-	-
		SB	SBT	T	T	1005	0.73	45.0	D	342	399
			SBR	R	R	0	-	-	-	-	-
		EB	EBR	R	R	0	-	-	-	-	-
		WB	WBR	R	R	1239	0.82	38.4	D	438	513
		Intersection	Intersection					29.2	C		
4	Chambers Street & Centre Street	NB	NBL	L	L	396	0.44	25.9	C	100	143
			NBT	T	T	457	0.52	12.9	B	158	232
		SB	SBT	TR	T	213	0.71	44.7	D	137	199
			SBR		R	27	0.25	34.7	C	16	38
		EB	EBR	R	R	393	0.89	51.0	D	239	#400
		Intersection	Intersection					31.6	C		
5a	Canal Street & Hudson Street/Holland Tunnel On-Ramp	NB	NBL	LTR	L	105	-	-	-	-	-
			NBT		T	670	0.86	40.8	D	179	#255
			NBR		R	150	0.44	31.3	C	76	144
			NBR2	R2	R2	45	0.24	27.8	C	24	51
		EB	EBL2	L2L	L2	49	-	-	-	-	-
			EBL		L	335	0.63	35.9	D	109	159
			EBT		T	555	0.67	18.4	B	216	337
		WB	WBT	T	T	337	0.67	17.9	B	35	m42
			WBR	R	R	73	-	-	-	-	-
		Intersection	Intersection					29.8	C		
5b	Canal Street & Holland Tunnel On-Ramp	EB	EBT	T	T	600	0.39	5.0	A	28	36
		WB	WBT	T	T	410	0.96	57.8	E	200	#320
			WBR	R	R	880	1.14	100.9	F	~548	#785
		Intersection	Intersection					57.2	E		
7a	Canal Street S & West Street	NB	NBT	T	T	2659	0.99	48.1	D	803	#928
			NBR	R	R	277	0.58	27.0	C	230	307
		SB	SBL	L	L	675	0.69	113.1	F	380	446
			SBT	T	T	2105	0.74	8.0	A	446	500
		Intersection	Intersection					40.0	D		
7b	Canal Street N & West Street	NB	NBT	T	T	2659	0.59	0.9	A	-	m0
		SB	SBT	T	T	2780	0.55	8.0	A	252	268
		WB	WBL	LR	L	0	-	-	-	-	-
			WBR		R	0	-	-	-	-	-
		Intersection	Intersection					4.5	A		
9	West Street & Albany Street	NB	NBT	T	T	2217	0.77	25.1	C	493	538
			NBR	TR	R	92	-	-	-	-	-
			SBL		L	5	-	-	-	-	-
		SB	SBT	T	T	1657	0.58	19.8	B	271	300
			SBR	R	R	136	-	-	-	-	-
		EB	EBL	L	L	134	0.76	-	-	-	-
			EBT	T	T	90		58.1	E	290	359
			EBR	R	R	64		-	-	-	-
		Intersection	Intersection					25.3	C		
10	West Street & Vesey Street	NB	NBL	L	L	5	-	-	-	-	-
			NBT	T	T	2232	0.69	19.8	B	410	448
		SB	SBT	T	T	1857	0.69	20.1	C	443	495
			SBR	R	R	321	0.83	41.1	D	256	#490
		EB	EBL	L	L	104	0.57	57.5	E	107	161
			EBR	R	R	79	0.39	48.8	D	73	123
		WB	WBL	LT	L	0	-	-	-	-	-
			WBT		T	0	-	-	-	-	-
			WBR	R	R	0	-	-	-	-	-
		Intersection	Intersection					23.0	C		
11	West Street & Chambers Street	NB	NBT	T	T	2240	0.84	36.5	D	577	627
			NBR	TR	T	63	-	-	-	-	-
		SB	SBL	L	L	222	0.74	78.3	E	132	168
			SBT	T	T	1775	0.63	17.0	B	376	420
			SBR	R	R	48	0.25	57.0	E	51	87
		EB	EBL	LTR	L	103	-	-	-	-	-
			EBT		T	30	0.57	55.2	E	152	238
			EBR		R	15	-	-	-	-	-
		WB	WBL	LT	L	69	-	-	-	-	-
			WBT		T	60	0.57	56.6	E	131	201
			WBR	R	R	305	0.74	45.9	D	287	354
		Intersection	Intersection					33.8	C		
14	Canal Street/Manhattan Bridge & Bowery	EB	EBT	T	T	709	0.73	27.2	C	220	245
			EBR	R	R	103	0.29	20.7	C	47	81
		WB	WBT	T	T	989	0.91	38.2	D	283	#414
			NBT	T	T	289	0.55	34.8	C	90	126
		SB	NBR	R	R	284	0.30	0.7	A	-	-
			SBL	L	L	240	0.45	12.5	B	15	65
			SBT	TR	T	136	0.53	9.3	A	30	57
			SBR		R	74		-	-	-	-
		Intersection	Intersection					25.7	C		
15	Manhattan Bridge & Bowery	NB	NBT	T	T	289	0.50	6.6	A	8	10
		SB	SBT	T	T	450	0.29	17.7	B	71	90
		WB	WBR	R	R	377	0.64	32.7	C	127	165
		Intersection	Intersection					19.9	B		
18	6th Avenue & Watts Street	WB	WBT	TR	T	718	0.34	16.9	B	84	108
			WBR		R	25	-	-	-	-	-
		NB	NBL	LT	L	72	-	-	-	-	-
			NBT		T	901	0.42	11.8	B	49	m56
		Intersection	Intersection					13.9	B		
19	Canal Street & 6th Avenue/Laight Street	NEB	NER	R	R	568	0.95	58.9	E	160	#238
		NB	NBL	LTR	L	157	0.49	-	-	-	-
			NBT		T	650		23.7	C	114	145
			NBR		R	4		-	-	-	-
		EB	EBT	T	T	617	0.78	37.7	D	178	244
		WB	WBT	TR	T	1148	1.03	57.6	E	~335	#427
			WBR		R	250	-	-	-	-	-
		Intersection	Intersection					46.0	D		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer  
#: the volume for the 95th percentile cycle exceeds capacity  
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Lower Manhattan Study Area - Build - MD Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	Trinity Place & Edgar Street	NB	NBL	LT	L	4	-	-	-	-	-
			NBT	T	T	34	0.03	9.6	A	5	13
		EB	EBL	L	L	291	0.69	33.7	C	173	236
		Intersection	Intersection					31.2	C		
2	Trinity Place & Rector Street	NB	NBT	T	T	264	0.40	41.2	D	114	151
			NBR	R	R	61	-	-	-	-	-
		EB	EBL	LT	L	109	-	-	-	-	-
			EBT		T	44	0.41	24.2	C	76	124
		Intersection	Intersection					35.7	D		
3a	HCT Entrance/Exit & West Street	NB	NBT	T	T	976	0.55	24.3	C	215	260
			NBR2	R2	R2	787	0.41	0.8	A	-	-
		SB	SBT	T	T	1330	0.61	1.0	A	-	-
		WB	WBL	L	L	860	0.65	36.0	D	215	264
		Intersection	Intersection					14.4	B		
3b	HCT Exit & West Street & West Thames Street	NB	NBT	T	T	976	0.46	0.6	A	-	-
		SB	SBT	T	T	1330	0.71	28.1	C	316	373
			SBR	R	R	0	-	-	-	-	-
		EB	EBR	R	R	0	-	-	-	-	-
		WB	WBR	R	R	852	0.76	40.2	D	237	295
		Intersection	Intersection					22.5	C		
4	Chambers Street & Centre Street	NB	NBL	L	L	289	0.36	24.7	C	75	105
			NBT	T	T	364	0.40	11.0	B	104	163
		SB	SBT	TR	T	201	0.68	43.0	D	128	188
			SBR		R	13	0.18	34.0	C	7	24
		EB	EBR	R	R	398	0.90	52.6	D	249	#399
		Intersection	Intersection					33.3	C		
5a	Canal Street & Hudson Street/Holland Tunnel On-Ramp	NB	NBL	LTR	L	75	-	-	-	-	-
			NBT		T	515	0.96	58.7	E	207	#288
			NBR		R	214	0.38	27.5	C	66	94
			NBR2	R2	R2	55	0.29	29.5	C	28	61
		EB	EBL2	L2L	L2	30	-	-	-	-	-
			EBL		L	206	0.43	31.8	C	71	100
			EBT		T	315	0.39	12.5	B	98	157
		WB	WBT	T	T	163	0.47	7.9	A	8	13
			WBR	R	R	27	0.12	4.8	A	1	m3
		Intersection	Intersection					35.0	C		
5b	Canal Street & Holland Tunnel On-Ramp	EB	EBT	T	T	370	0.25	5.8	A	26	36
		WB	WBT	T	T	190	0.55	34.1	C	103	174
			WBR	R	R	605	0.58	15.2	B	127	186
		Intersection	Intersection					15.5	B		
7a	Canal Street S & West Street	NB	NBT	T	T	2100	0.92	36.6	D	477	543
			NBR	R	R	141	0.35	22.1	C	91	138
		SB	SBL	L	L	349	0.36	43.2	D	161	200
			SBT	T	T	1835	0.68	6.1	A	308	360
		Intersection	Intersection					24.1	C		
7b	Canal Street N & West Street	NB	NBT	T	T	2100	0.52	0.4	A	-	-
		SB	SBT	T	T	2184	0.45	8.3	A	169	188
		WB	WBL	LR	L	0	-	-	-	-	-
			WBR		R	0	-	-	-	-	-
		Intersection	Intersection					4.4	A		
9	West Street & Albany Street	NB	NBT	T	T	1474	0.60	20.3	C	247	285
			NBR	TR	R	85	-	-	-	-	-
			SBL		L	5	-	-	-	-	-
		SB	SBT	T	T	2126	0.75	23.6	C	331	370
			SBR	R	R	86	-	-	-	-	-
		EB	EBL	L	L	101	-	-	-	-	-
			EBT	T	T	95	0.59	36.3	D	190	252
			EBR	R	R	63	-	-	-	-	-
		Intersection	Intersection					23.2	C		
10	West Street & Vesey Street	NB	NBL	L	L	10	-	-	-	-	-
			NBT	T	T	1841	0.71	22.8	C	313	357
		SB	SBT	T	T	2117	0.86	28.4	C	517	591
			SBR	R	R	164	0.40	20.1	C	79	138
		EB	EBL	L	L	139	0.54	39.0	D	97	166
			EBR	R	R	151	0.46	34.8	C	94	162
		WB	WBL	LT	L	0	-	-	-	-	-
			WBT		T	0	-	-	-	-	-
			WBR		R	0	-	-	-	-	-
		Intersection	Intersection					26.3	C		
11	West Street & Chambers Street	NB	NBT	T	T	1868	0.82	34.1	C	395	446
			NBR	TR	T	43	-	-	-	-	-
		SB	SBL	L	L	171	0.45	52.5	D	72	108
			SBT	T	T	2002	0.72	18.1	B	390	446
			SBR	R	R	81	0.34	45.0	D	67	107
		EB	EBL	LTR	L	43	-	-	-	-	-
			EBT		T	0	0.18	33.4	C	38	67
			EBR		R	10	-	-	-	-	-
		WB	WBL	LT	L	73	-	-	-	-	-
			WBT		T	65	0.53	42.6	D	110	161
			WBR		R	272	0.58	27.4	C	174	229
		Intersection	Intersection					28.1	C		
14	Canal Street/Manhattan Bridge & Bowery	EB	EBT	T	T	435	0.45	21.5	C	101	144
			EBR	R	R	123	0.34	21.5	C	59	95
		WB	WBT	T	T	554	0.56	23.4	C	137	192
		NB	NBT	T	T	255	0.44	31.1	C	78	106
			NBR	R	R	293	0.30	0.7	A	-	-
		SB	SBL	L	L	224	0.45	12.8	B	6	76
			SBT	TR	T	116	0.47	7.9	A	10	44
			SBR		R	65	-	-	-	-	-
		Intersection	Intersection					17.8	B		
15	Manhattan Bridge & Bowery	NB	NBT	T	T	253	0.23	0.7	A	-	-
		SB	SBT	T	T	405	0.26	17.4	B	62	81
		WB	WBR	R	R	143	0.11	6.7	A	19	30
		Intersection	Intersection					10.1	B		
18	6th Avenue & Watts Street	WB	WBT	TR	T	697	0.33	16.8	B	83	107
			WBR		R	24	-	-	-	-	-
		NB	NBL	LT	L	72	-	-	-	-	-
			NBT		T	770	0.34	7.5	A	25	32
		Intersection	Intersection					11.8	B		
19	Canal Street & 6th Avenue/Laight Street	NEB	NER	R	R	309	0.55	36.2	D	78	114
		NB	NBL	LTR	L	148	-	-	-	-	-
			NBT		T	657	0.46	23.3	C	109	138
			NBR		R	3	-	-	-	-	-
		EB	EBT	T	T	376	0.53	30.3	C	105	152
		WB	WBT	TR	T	642	0.63	21.2	C	133	178
			WBR		R	131	-	-	-	-	-
		Intersection	Intersection					25.5	C		

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Lower Manhattan Study Area - Build - PM Peak Hour												
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)	
1	Trinity Place & Edgar Street	NB	NBL	LT	L	0	-	-	-	-	-	
			NBT	T	T	0	-	-	-	-	-	
		EB	EBL	L	L	136	0.28	23.3	C	63	110	
		Intersection	Intersection					23.3	C			
2	Trinity Place & Rector Street	NB	NBT	T	T	121	0.19	35.6	D	42	68	
		EB	NBR	R	R	15	-	-	-	-	-	
			EBL	LT	L	68	-	-	-	-	-	
			EBT		T	38	0.30	22.2	C	51	86	
		Intersection	Intersection					29.6	C			
3a	HCT Entrance/Exit & West Street	NB	NBT	T	T	538	0.30	23.2	C	134	151	
			NBR2	R2	R2	1206	0.61	1.2	A	-	-	
		SB	SBT	T	T	1197	0.57	0.8	A	-	-	
		WB	WBL	L	L	349	0.29	35.7	D	96	126	
		Intersection	Intersection					8.4	A			
3b	HCT Exit & West Street & West Thames Street	NB	NBT	T	T	538	0.26	0.5	A	-	-	
		SB	SBT	T	T	1197	0.63	29.7	C	348	393	
			SBR	R	R	0	-	-	-	-	-	
		EB	EBR	R	R	0	-	-	-	-	-	
		WB	WBR	R	R	510	0.48	39.5	D	174	208	
Intersection	Intersection					24.7	C					
4	Chambers Street & Centre Street	NB	NBL	L	L	374	0.43	25.7	C	93	134	
			NBT	T	T	448	0.55	13.5	B	164	229	
		SB	SBT	TR	T	290	0.97	77.4	E	195	#327	
			SBR		R	12	0.14	31.9	C	7	22	
		EB	EBR	R	R	464	1.08	93.2	F	~353	#492	
Intersection	Intersection					52.1	D					
5a	Canal Street & Hudson Street/Holland Tunnel On-Ramp	NB	NBL	LTR	L	45	-	-	-	-	-	
			NBT		T	585	0.88	44.6	D	195	#297	
			NBR		R	159	0.26	25.8	C	44	73	
		EB	NBR2	R2	R2	8	0.04	23.8	C	4	14	
			EBL2	L2L	L2	5	-	-	-	-	-	-
			EBL		L	178	0.32	30.2	C	54	77	
		WB	EBT	T	T	419	0.49	14.1	B	144	222	
			WBT	T	T	0	-	-	-	-	-	-
		Intersection	Intersection					-	-	-	-	-
5b	Canal Street & Holland Tunnel On-Ramp	EB	EBT	T	T	427	0.27	3.1	A	11	15	
		WB	WBT	T	T	0	-	-	-	-	-	-
			WBR	R	R	1405	1.23	131.8	F	~628	#773	
		Intersection	Intersection					102.6	F			
7a	Canal Street S & West Street	NB	NBT	T	T	2629	0.96	41.1	D	752	820	
			NBR	R	R	5	0.01	14.8	B	2	9	
		SB	SBL	L	L	484	0.53	112.1	F	293	345	
			SBT	T	T	1734	0.60	5.0	A	58	55	
Intersection	Intersection					35.9	D					
7b	Canal Street N & West Street	NB	NBT	T	T	2629	0.60	0.8	A	-	-	
		SB	SBT	T	T	2218	0.44	8.6	A	201	217	
		WB	WBL	LR	L	0	-	-	-	-	-	
			WBR		R	0	-	-	-	-	-	
Intersection	Intersection					4.4	A					
9	West Street & Albany Street	NB	NBT	T	T	1227	0.46	20.1	C	221	251	
			NBR	TR	R	47	-	-	-	-	-	-
		SB	SBL		L	0	-	-	-	-	-	-
			SBT	T	T	2192	0.66	24.1	C	382	413	
			SBR	R	R	76	-	-	-	-	-	-
		EB	EBL	L	L	139	-	-	-	-	-	-
			EBT	T	T	90	0.71	50.4	D	294	412	
			EBR	R	R	81	-	-	-	-	-	-
Intersection	Intersection					25.0	C					
10	West Street & Vesey Street	NB	NBL	L	L	0	-	-	-	-	-	
			NBT	T	T	1462	0.42	14.7	B	216	241	
		SB	SBT	T	T	2345	0.79	23.3	C	610	672	
			SBR	R	R	134	0.31	15.2	B	64	109	
		EB	EBL	L	L	99	0.57	57.9	E	102	156	
			EBR	R	R	121	0.60	58.5	E	118	191	
		WB	WBL	LT	L	10	-	-	-	-	-	-
			WBT		T	0	0.05	39.7	D	9	25	
WBR	R		R	0	-	-	-	-	-	-		
Intersection	Intersection					22.1	C					
11	West Street & Chambers Street	NB	NBT	T	T	1754	0.70	33.9	C	420	463	
			NBR	TR	T	35	-	-	-	-	-	-
		SB	SBL	L	L	183	0.77	85.0	F	112	143	
			SBT	T	T	1809	0.67	22.1	C	448	498	
			SBR	R	R	90	0.44	66.6	E	85	146	
		EB	EBL	LTR	L	49	-	-	-	-	-	-
			EBT		T	20	0.26	39.6	D	66	101	
			EBR		R	5	-	-	-	-	-	-
		WB	WBL	LT	L	126	-	-	-	-	-	-
WBT	T		90		0.73	58.4	E	224	329			
WBR	R		R	392	0.72	40.4	D	301	423			
Intersection	Intersection					34.1	C					
14	Canal Street/Manhattan Bridge & Bowery	EB	EBT	T	T	800	0.76	27.7	C	221	297	
			EBR	R	R	83	0.29	21.1	C	38	69	
		WB	WBT	T	T	347	0.33	19.6	B	84	110	
		NB	NBT	T	T	167	0.29	29.0	C	46	74	
			NBR	R	R	472	0.42	1.1	A	-	-	-
		SB	SBL	L	L	400	0.60	15.1	B	64	98	
			SBT	TR	T	46	0.11	3.6	A	2	4	
SBR	R	16	0.05		2.8	A	1	2				
Intersection	Intersection					18.4	B					
15	Manhattan Bridge & Bowery	NB	NBT	T	T	167	0.15	1.5	A	2	2	
		SB	SBT	T	T	462	0.23	17.0	B	55	70	
		WB	WBR	R	R	222	0.17	7.1	A	32	45	
		Intersection	Intersection					11.2	B			
18	6th Avenue & Watts Street	WB	WBT	TR	T	195	0.10	14.7	B	22	30	
			WBR		R	0	-	-	-	-	-	-
		NB	NBL	LT	L	132	-	-	-	-	-	-
			NBT		T	483	0.27	34.6	C	81	m106	
Intersection	Intersection					29.5	C					
19	Canal Street & 6th Avenue/Laight Street	NEB	NER	R	R	346	0.61	37.4	D	92	125	
		NB	NBL	LTR	L	37	-	-	-	-	-	-
			NBT		T	591	0.36	22.1	C	86	110	
			NBR		R	3	-	-	-	-	-	-
		EB	EBT	T	T	351	0.47	29.2	C	101	137	
		WB	WBT	TR	T	1247	0.90	31.2	C	283	301	
WBR	R		9		-	-	-	-	-	-		
Intersection	Intersection					29.6	C					

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Queens Midtown Tunnel Study Area - With Action (no mitigation) - MD Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	E 37th Street & 3rd Avenue	NB	NBL	L	L	39	0.10	4.6	A	3	m5
			NBT	T	T	576	0.44	4.8	A	14	23
		WB	WBT	T	T	574	0.95	48.2	D	178	#291
			WBR	R	R	259	0.71	43.9	D	96	131
		Intersection	Intersection					29.0	C		
2	E 36th Street & 2nd Avenue	SB	SBL	L	L	207	0.37	27.6	C	53	86
			SBT	T	T	1012	0.49	11.6	B	121	155
		EB	EBT	T	T	1142	1.21	134.3	F	~353	#445
			EBR	TR	R	84	-	-	-	-	-
		WB	WBL	L	L	0	-	-	-	-	-
		Intersection	Intersection					75.3	E		
3	E 34th Street & 3rd Avenue	NB	NBL	LT	L	22	-	-	-	-	-
			NBT	T	T	967	0.43	17.9	B	100	123
			NBR	R	R	162	0.73	41.9	D	78	#191
		EB	EBT	T	T	397	0.86	45.2	D	228	#402
		WB	WBT	T	T	420	0.91	52.5	D	243	#431
			WBR	R	R	78	0.29	23.2	C	38	69
		Intersection	Intersection					32.4	C		
4	E 35th Street & 3rd Avenue	NB	NBL	LT	L	78	-	-	-	-	-
			NBT	T	T	967	0.74	11.6	B	249	320
		WB	WBT	T	T	477	0.52	24.6	C	130	180
			WBR	TR	R	56	0.18	21.1	C	26	51
		Intersection	Intersection					16.0	B		
5	E 34th Street & 2nd Ave	SB	SBL	L	L	225	0.37	29.7	C	75	110
			SBT	T	T	1299	0.71	21.4	C	285	342
			SBR	R	R	42	0.32	18.0	B	12	m31
		EB	EBT	T	T	557	0.71	32.7	C	158	221
			EBR	TR	R	126	0.57	36.9	D	65	130
		WB	WBT	T	T	231	0.57	32.0	C	122	202
		Intersection	Intersection					26.5	C		
6	E 35th Street & 2nd Ave	SB	SBT	T	T	1018	0.56	12.0	B	50	m57
			SBR	R	R	78	-	-	-	-	-
		EB	EBR	R	R	468	0.61	25.9	C	128	188
		WB	WBT	T	T	85	0.14	18.3	B	27	42
			WBL	L	L	80	0.14	18.9	B	26	50
		Intersection	Intersection					16.4	B		

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Queens Midtown Tunnel Study Area - With Action (no mitigation) - LN Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	E 37th Street & 3rd Avenue	NB	NBL	L	L	22	0.07	3.5	A	1	m3
			NBT	T	T	976	0.51	4.5	A	15	18
		WB	WBT	T	T	372	0.29	14.4	B	72	101
			WBR	R	R	346	1.00	83.7	F	~136	#213
		Intersection	Intersection					23.9	C		
2	E 36th Street & 2nd Avenue	SB	SBL	L	L	368	0.46	28.4	C	90	133
			SBT	T	T	1467	0.64	13.8	B	200	247
		EB	EBT	T	T	520	0.50	27.7	C	104	140
			EBR	TR	R	47	-	-	-	-	-
		WB	WBL	L	L	0	-	-	-	-	-
		Intersection	Intersection					19.3	B		
3	E 34th Street & 3rd Avenue	NB	NBL	LT	L	36	-	-	-	-	-
			NBT	T	T	1167	0.48	18.4	B	124	151
			NBR	R	R	184	0.54	24.9	C	84	152
		EB	EBT	T	T	432	0.45	23.3	C	105	151
		WB	WBT	T	T	288	0.32	21.6	C	68	101
			WBR	R	R	94	0.31	23.2	C	46	80
		Intersection	Intersection					20.6	C		
4	E 35th Street & 3rd Avenue	NB	NBL	LT	L	51	-	-	-	-	-
			NBT	T	T	1210	0.49	4.2	A	17	20
		WB	WBT	T	T	392	0.43	23.1	C	107	143
			WBR	TR	R	52	0.14	20.4	C	24	48
		Intersection	Intersection					9.4	A		
5	E 34th Street & 2nd Ave	SB	SBL	L	L	338	0.55	26.3	C	119	152
			SBT	T	T	1334	0.69	13.1	B	230	270
			SBR	R	R	98	0.26	7.7	A	15	m23
		EB	EBT	T	T	588	0.62	29.1	C	136	165
			EBR	TR	R	70	-	-	-	-	-
		WB	WBT	T	T	181	0.24	24.0	C	47	71
		Intersection	Intersection					19.7	B		
6	E 35th Street & 2nd Ave	SB	SBT	T	T	1423	0.65	11.3	B	55	62
			SBR	R	R	91	-	-	-	-	-
		EB	EBR	R	R	273	0.34	20.8	C	65	101
		WB	WBT	T	T	78	0.12	18.0	B	23	42
			WBL	L	L	74	0.11	18.5	B	23	45
		Intersection	Intersection					13.2	B		

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RFK Bridge Study Area - Action - AM Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	126th Street and 2nd Avenue	NW	NWL2	L	L2	30	-	-	-	-	-
			NWL		L	190	0.97	85.0	F	150	#271
			NWR	R	R	415	0.31	7.3	A	61	79
		SB	SBT	TR	T	1183	0.53	21.5	C	123	149
			SBR		R	42	-	-	-	-	-
		WB	WBL	L	L	39	-	-	-	-	-
			WBT	T	T	29	0.77	54.7	D	104	#178
			WBR	R	R	90	-	-	-	-	-
		Intersection	Intersection					28.5	C		
2	125th Street and 2nd Avenue	SB	SBL	L	L	502	0.54	7.5	A	23	m30
			SBT	TR	T	699	0.54	6.7	A	20	m24
			SBR		R	51	-	-	-	-	-
		SW	SWL	L	L	453	1.22	147.1	F	~256	#342
			SWR	R	R	153	-	-	-	-	-
		EB	EBT	TR	T	672	0.92	50.4	D	168	#228
			EBR		R	40	-	-	-	-	-
		WB	WBL	LT	L	11	-	-	-	-	-
			WBT		T	29	0.10	27.2	C	10	24
		Intersection	Intersection					52.7	D		
11	E 134th Street & St. Ann's Avenue	NB	NBT	TR	T	140	0.46	18.5	B	98	m125
			NBR		R	80	-	-	-	-	-
		SB	SBL	LT	L	145	-	-	-	-	-
			SBT		T	105	0.62	20.2	C	76	128
		EB	EBL	LTR	L	140	-	-	-	-	-
			EBT		T	120	0.80	33.1	C	116	#213
			EBR		R	45	-	-	-	-	-
		Intersection	Intersection					24.8	C		
22	St Ann's Ave and Bruckner Blvd	NB	NBL	LTR	L	25	-	-	-	-	-
			NBT		T	105	0.56	46.0	D	119	196
			NBR		R	30	-	-	-	-	-
		SB	SBL	LTR	L	55	-	-	-	-	-
			SBT		T	70	0.57	48.6	D	134	m186
			SBR		R	25	-	-	-	-	-
		EB	EBL	LTR	L	50	-	-	-	-	-
			EBT		T	1440	0.90	25.6	C	505	657
			EBR		R	30	-	-	-	-	-
		WB	WBL	LTR	L	40	-	-	-	-	-
			WBT		T	480	0.50	11.6	B	131	157
			WBR		R	65	-	-	-	-	-
		Intersection	Intersection					24.9	C		
17	31st St & Astoria Blvd	NB	NBT	T	T	70	0.19	36.1	D	48	88
			NBR	R	R	13	0.02	7.2	A	4	11
		SB	SBT	T	T	547	0.61	26.3	C	409	543
			SBR	R	R	169	0.40	23.9	C	110	183
		EB	EBL	L	L	11	-	-	-	-	-
			EBT	T	T	382	0.54	33.2	C	163	197
			EBR	R	R	27	-	-	-	-	-
		Intersection	Intersection					28.9	C		
24	Hoyt N & 31st St	NB	NBL	L	L	15	-	-	-	-	-
			NBT	T	T	75	0.16	19.3	B	40	m61
		SB	SBT	T	T	243	0.77	107.2	F	171	208
			SBR	R	R	129	-	-	-	-	-
		WB	WBL	L	L	402	0.26	9.3	A	73	92
			WBT	T	T	2109	0.65	13.9	B	277	314
			WBR	R	R	35	0.10	8.5	A	11	24
		Intersection	Intersection					26.3	C		
3	Hoyt S & 31st St	NB	NBT	T	T	74	0.12	22.6	C	13	20
			NBR	R	R	7	-	-	-	-	-
		SB	SBL	L	L	20	-	-	-	-	-
			SBT	T	T	625	0.37	14.8	B	203	254
		EB	EBL	L	L	16	-	-	-	-	-
			EBT	T	T	940	0.83	48.5	D	236	265
			EBR	R	R	91	0.39	42.0	D	72	114
		Intersection	Intersection					35.1	D		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer  
#: the volume for the 95th percentile cycle exceeds capacity  
m: volume for the 95th percentile queue is metered by an upstream signal

RFK Bridge Study Area - Action - PM Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	126th Street and 2nd Avenue	NW	NWL2	L	L2	25	-	-	-	-	-
			NWL		L	180	0.93	76.4	E	140	#244
			NWR	R	R	765	0.55	10.0	B	138	176
		SB	SBT	TR	T	1332	0.53	21.4	C	132	157
			SBR		R	31	-	-	-	-	-
		WB	WBL	L	L	42	-	-	-	-	-
			WBT	T	T	22	0.50	37.5	D	66	108
			WBR	R	R	44	-	-	-	-	-
		Intersection	Intersection					23.5	C		
2	125th Street and 2nd Avenue	SB	SBL	L	L	633	0.66	9.8	A	28	m35
			SBT	TR	T	715	0.47	6.1	A	20	m24
			SBR		R	51	-	-	-	-	-
		SW	SWL	L	L	583	1.39	216.6	F	~339	#455
			SWR	R	R	218	-	-	-	-	-
		EB	EBT	TR	T	731	0.86	43.2	D	160	#227
			EBR		R	20	-	-	-	-	-
		WB	WBL	LT	L	26	-	-	-	-	-
			WBT		T	83	0.26	29.2	C	29	54
		Intersection	Intersection					71.4	E		
11	E 134th Street & St. Ann's Avenue	NB	NBT	TR	T	110	0.41	10.9	B	44	m96
			NBR		R	100	-	-	-	-	-
		SB	SBL	LT	L	110	-	-	-	-	-
			SBT		T	50	0.38	13.8	B	42	75
		EB	EBL	LTR	L	155	-	-	-	-	-
			EBT		T	140	0.78	30.3	C	116	#205
			EBR		R	30	-	-	-	-	-
		Intersection	Intersection					20.5	C		
22	St Ann's Ave and Bruckner Blvd	NB	NBL	LTR	L	20	-	-	-	-	-
			NBT		T	95	0.50	43.0	D	118	169
			NBR		R	30	-	-	-	-	-
		SB	SBL	LTR	L	35	-	-	-	-	-
			SBT		T	20	0.29	39.6	D	58	m91
			SBR		R	25	-	-	-	-	-
		EB	EBL	LTR	L	50	-	-	-	-	-
			EBT		T	1300	0.85	22.5	C	452	577
			EBR		R	45	-	-	-	-	-
		WB	WBL	LTR	L	25	-	-	-	-	-
			WBT		T	610	0.46	11.4	B	153	181
			WBR		R	65	-	-	-	-	-
		Intersection	Intersection					21.1	C		
17	31st St & Astoria Blvd	NB	NBT	T	T	48	0.13	27.6	C	24	54
			NBR	R	R	7	0.01	4.4	A	1	5
		SB	SBT	T	T	433	0.53	76.5	E	171	260
			SBR	R	R	198	0.67	91.3	F	98	164
		EB	EBL	L	L	17	-	-	-	-	-
			EBT	T	T	402	0.52	23.3	C	125	162
			EBR	R	R	50	-	-	-	-	-
		Intersection	Intersection					54.4	D		
24	Hoyt N & 31st St	NB	NBL	L	L	21	-	-	-	-	-
			NBT	T	T	49	0.13	28.5	C	30	m52
		SB	SBT	T	T	56	0.26	37.0	D	46	76
			SBR	R	R	66	-	-	-	-	-
		WB	WBL	L	L	514	0.34	9.7	A	98	118
			WBT	T	T	1445	0.45	10.4	B	155	179
			WBR	R	R	35	0.07	7.8	A	11	22
		Intersection	Intersection					12.4	B		
3	Hoyt S & 31st St	NB	NBT	T	T	59	0.09	38.4	D	23	43
			NBR	R	R	6	-	-	-	-	-
		SB	SBL	L	L	20	-	-	-	-	-
			SBT	T	T	550	0.35	8.9	A	136	163
		EB	EBL	L	L	11	-	-	-	-	-
			EBT	T	T	1111	0.63	33.7	C	221	261
			EBR	R	R	81	0.24	29.0	C	54	88
		Intersection	Intersection					26.1	C		

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RFK Bridge Study Area - Action - LN Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	126th Street and 2nd Avenue	NW	NWL2	L	L2	5	-	-	-	-	-
			NWL		L	75	0.36	35.3	D	49	85
			NWR	R	R	535	0.40	8.1	A	85	107
		SB	SBT	TR	T	540	0.23	18.1	B	48	64
			SBR		R	17	-	-	-	-	-
		WB	WBL	L	L	20	-	-	-	-	-
			WBT	T	T	33	0.44	35.2	D	63	119
			WBR	R	R	57	-	-	-	-	-
		Intersection	Intersection					16.4	B		
2	125th Street and 2nd Avenue	SB	SBL	L	L	124	0.15	5.8	A	7	10
			SBT	TR	T	424	0.29	6.2	A	14	17
			SBR		R	17	-	-	-	-	-
		SW	SWL	L	L	187	0.66	39.1	D	100	147
			SWR	R	R	164	-	-	-	-	-
		EB	EBT	TR	T	682	0.84	41.9	D	163	#223
			EBR		R	50	-	-	-	-	-
		WB	WBL	LT	L	8	-	-	-	-	-
			WBT		T	37	0.09	26.9	C	12	25
		Intersection	Intersection					28.3	C		
11	E 134th Street & St. Ann's Avenue	NB	NBT	TR	T	100	0.21	17.0	B	53	m72
			NBR		R	20	-	-	-	-	-
		SB	SBL	LT	L	40	-	-	-	-	-
			SBT		T	50	0.18	10.9	B	23	44
		EB	EBL	LTR	L	190	-	-	-	-	-
			EBT		T	90	0.70	25.0	C	105	164
			EBR		R	35	-	-	-	-	-
		Intersection	Intersection					20.6	C		
22	St Ann's Ave and Bruckner Blvd	NB	NBL	LTR	L	10	-	-	-	-	-
			NBT		T	55	0.24	33.0	C	57	91
			NBR		R	15	-	-	-	-	-
		SB	SBL	LTR	L	30	-	-	-	-	-
			SBT		T	10	0.25	35.0	C	66	m104
			SBR		R	45	-	-	-	-	-
		EB	EBL	LTR	L	40	-	-	-	-	-
			EBT		T	1515	0.88	26.6	C	527	654
			EBR		R	10	-	-	-	-	-
		WB	WBL	LTR	L	10	-	-	-	-	-
			WBT		T	500	0.33	12.2	B	111	145
			WBR		R	25	-	-	-	-	-
		Intersection	Intersection					23.7	C		
17	31st St & Astoria Blvd	NB	NBT	T	T	24	0.07	26.8	C	13	32
			NBR	R	R	6	0.01	4.5	A	1	5
		SB	SBT	T	T	306	0.41	7.3	A	30	39
			SBR	R	R	147	0.34	8.3	A	14	22
		EB	EBL	L	L	10	-	-	-	-	-
			EBT	T	T	322	0.36	20.7	C	81	118
			EBR	R	R	17	-	-	-	-	-
		Intersection	Intersection					13.5	B		
24	Hoyt N & 31st St	NB	NBL	L	L	11	-	-	-	-	-
			NBT	T	T	24	0.05	10.5	B	3	m7
		SB	SBT	T	T	167	0.23	21.1	C	47	75
			SBR	R	R	38	-	-	-	-	-
		WB	WBL	L	L	444	0.33	42.2	D	79	107
			WBT	T	T	1065	0.41	13.1	B	112	134
			WBR	R	R	20	0.04	10.4	B	6	16
		Intersection	Intersection					21.2	C		
3	Hoyt S & 31st St	NB	NBT	T	T	29	0.04	17.4	B	4	11
			NBR	R	R	5	-	-	-	-	-
		SB	SBL	L	L	204	-	-	-	-	-
			SBT	T	T	407	0.58	31.8	C	167	206
		EB	EBL	L	L	6	-	-	-	-	-
			EBT	T	T	864	0.51	25.3	C	124	156
			EBR	R	R	46	0.14	22.3	C	22	45
		Intersection	Intersection					27.7	C		

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#: the volume for the 95th percentile cycle exceeds capacity  
m: volume for the 95th percentile queue is metered by an upstream signal

Red Hook Study Area - With-Action - AM Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	Hamilton Avenue, Clinton Street & West 9th Street	EB	EBT	TR	T	113	0.43	44.8	D	94	140
			EBR		R	0	-	-	-	-	-
		NB	NBL	LT	L	260	-	-	-	-	-
			NBT		T	2407	0.64	8.0	A	117	144
		SB (at West 9th)	SBT	TR	T	1139	0.41	8.4	A	141	168
			SBR		R	83	-	-	-	-	-
		SB (at Clinton St)	SBL	L	L	255	0.29	4.7	A	31	42
			SBT	LTR	T	879	0.54	6.7	A	54	71
			SBR		R	120	-	-	-	-	-
		WB	WBL	L	L	115	0.14	54.5	D	41	59
			WBT	T	T	145	0.24	58.6	E	76	106
		Intersection						10.1	B		
2	Hamilton Avenue NB & West 9th Street	NB	NBT	T	T	2059	0.60	14.4	B	270	303
		WB	WBR	R	R	240	0.41	36.4	D	103	134
		Intersection	Intersection					17.0	B		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer  
#: the volume for the 95th percentile cycle exceeds capacity  
m: volume for the 95th percentile queue is metered by an upstream signal

Red Hook Study Area - With-Action - MD Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	Hamilton Avenue, Clinton Street & West 9th Street	EB	EBT	TR	T	109	0.37	41.4	D	87	131
			EBR		R	0	-	-	-	-	-
		NB	NBL	LT	L	245	-	-	-	-	-
			NBT		T	2167	0.60	8.4	A	110	131
		SB (at West 9th)	SBT	TR	T	1170	0.43	9.5	A	159	188
			SBR		R	93	-	-	-	-	-
		SB (at Clinton St)	SBL	L	L	261	0.28	4.7	A	29	41
			SBT	LTR	T	905	0.57	7.2	A	60	74
			SBR		R	134	-	-	-	-	-
		WB	WBL	L	L	130	0.14	56.0	E	41	65
			WBT	T	T	115	0.16	56.4	E	57	90
		Intersection						10.4	B		
2	Hamilton Avenue NB & West 9th Street	NB	NBT	T	T	1919	0.52	10.7	B	209	236
		WB	WBR	R	R	123	0.27	38.4	D	54	78
		Intersection	Intersection					12.7	B		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer  
#: the volume for the 95th percentile cycle exceeds capacity  
m: volume for the 95th percentile queue is metered by an upstream signal



Red Hook Study Area - With-Action - LN Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	Hamilton Avenue, Clinton Street & West 9th Street	EB	EBT	TR	T	56	0.17	37.5	D	42	74
			EBR		R	0	-	-	-	-	-
		NB	NBL	LT	L	75	-	-	-	-	-
			NBT		T	1203	0.34	8.5	A	77	85
		SB (at West 9th)	SBT	TR	T	747	0.25	7.8	A	84	103
			SBR		R	45	-	-	-	-	-
		SB (at Clinton St)	SBL	L	L	196	0.20	2.6	A	13	17
			SBT	LTR	T	551	0.29	2.5	A	18	22
			SBR		R	25	-	-	-	-	-
		WB	WBL	L	L	25	0.03	60.6	E	9	19
			WBT	T	T	50	0.07	61.7	E	24	47
		Intersection						8.3	A		
2	Hamilton Avenue NB & West 9th Street	NB	NBT	T	T	959	0.25	7.8	A	83	99
		WB	WBR	R	R	67	0.13	36.4	D	28	47
		Intersection	Intersection					10.0	A		

~: the approach is above capacity for the 50th percentile traffic , queue can be longer  
#: the volume for the 95th percentile cycle exceeds capacity  
m: volume for the 95th percentile queue is metered by an upstream signal

Upper East Side Study Area - Action - LN Peak Hour											
Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	Volume	V/C	Delay	LOS	Q (50th)	Q (95th)
1	E 60th Street & Queensboro Bridge Exit	NB	NBL	LTR	L	9	-	-	-	-	-
			NBT		T	79	-	-	-	-	-
			NBR		R	273	-	-	-	-	-
		EB	EBL	LT	L	0	-	-	-	-	-
			EBT		T	10	-	-	-	-	-
		Intersection	Unsignalized								
2	E 60th Street & 3rd Ave	NB	NBL	L	L	70	0.14	17.9	B	30	54
			NBT	T	T	932	0.46	20.7	C	115	144
		WB	WBT	T	T	219	0.38	16.4	B	63	178
			WBR	R	R	30	0.14	33.7	C	20	46
		Intersection	Intersection					20.0	C		
3	E 60th Street & York Ave	NB	NBT	T	T	475	0.27	18.8	B	90	110
		SB	SBT	T	T	378	0.19	18.0	B	62	84
		EB	EBL	L	L	228	0.31	29.1	C	80	122
			EBT	LT	T	0	0.33	29.4	C	80	118
			EBR	R	R	25	0.06	24.5	C	15	33
		WB	WBL	L	L	0	-	-	-	-	-
			WBT	T	T	0	-	-	-	-	-
			WBR	R	R	0	-	-	-	-	-
		Intersection	Intersection					21.0	C		
		4	E 59th Street & 2nd Ave	EB	EBT	T	T	181	0.20	21.4	C
EBR	RR2				R	120	0.65	33.6	C	125	183
EBR2					R2	94	-	-	-	-	-
SB	SBL2			L2	L2	227	0.16	2.4	A	7	12
	SBL			L2L	L	6	-	-	-	-	-
	SBT			T	T	741	0.35	3.1	A	16	24
Intersection	Intersection							10.6	B		
5	E 60th Street & 2nd Ave			NWB	NWL2	L2	L2	160	0.10	15.9	B
		NWL	L		L	150	0.14	16.3	B	31	47
		SB	SBL2	L2	L2	14	-	-	-	-	-
			SBT	TR	T	809	0.35	17.0	B	93	118
			SBR		R	94	0.25	17.4	B	40	69
		WB	WBL	LT	L	5	-	-	-	-	-
			WBT	T	T	5	0.01	15.2	B	2	6
		Intersection	Intersection					16.8	B		
		6	E 60th Street & 1st Ave	NB	NBT	T	T	1116	0.45	15.7	B
NBR	TR				R	86	-	-	-	-	-
EB	EBL			L	L	116	0.33	25.7	C	61	98
	EBT			T	T	167	0.15	15.9	B	35	53
Intersection	Intersection							16.6	B		
7	E 60th Street & Lexington Ave			SB	SBT	T	T	743	0.63	22.6	C
		SBR	R		R	47	0.11	16.0	B	19	38
		WB	WBL	L	L	64	0.15	20.7	C	33	68
			WBT	T	T	225	0.26	21.9	C	68	93
		Intersection	Intersection					22.0	C		
		8a	E 60th Street & Park Ave NB	NB	NBL	LT	L	50	-	-	-
NBT	T				T	499	0.29	18.3	B	90	117
WBT	T				T	237	0.34	27.0	C	85	113
WBR	TR				R	35	-	-	-	-	-
Intersection	Intersection							21.4	C		
8b	E 60th Street & Park Ave NB			SB	SBT	T	T	808	0.50	21.1	C
		SBR	TR		R	96	-	-	-	-	-
		WB	WBL	L	L	97	-	-	-	-	-
			WBT	T	T	190	0.36	10.9	B	25	31
		Intersection	Intersection					18.5	B		
		9	E 60th Street & Madison Ave	NB	NBL	L	L	73	0.14	17.3	B
NBT	T				T	810	0.59	16.0	B	192	248
WB	WBT			T	T	234	0.35	18.3	B	42	52
	WBR			TR	R	52	-	-	-	-	-
Intersection	Intersection							16.7	B		
10	E 62nd Street & Queensboro Bridge Exit			NB	NBT	T	T	1094	0.78	15.3	B
		NBR	R		R	834	0.79	20.9	C	249	#453
		EB	EBL	LT	L	7	-	-	-	-	-
			EBT	T	T	99	0.17	27.6	C	28	50
		Intersection	Intersection					17.6	B		
		11	E 60th Street & 5th Ave	SB	SBT	T	T	599	0.62	10.0	B
SBR	R				R	194	0.49	10.2	B	21	30
WB	WBL			L	L	152	0.34	24.2	C	71	123
	WBT			T	T	155	0.19	21.3	C	35	59
Intersection	Intersection							13.5	B		
12	E 63rd Street & York Ave			NB	NBT	T	T	166	0.40	33.8	C
		NBR	TR		R	285	0.35	6.6	A	61	92
		SB	SBL	L	L	325	0.43	22.7	C	88	144
			SBT	T	T	338	0.40	18.3	B	101	117
			SBR	TR	R	49	-	-	-	-	-
		WB	WBL	L	L	234	0.40	36.3	D	114	187
			WBT	LT	T	228	0.40	34.5	C	117	164
			WBR	TR	R	21	-	-	-	-	-
		Intersection	Intersection					23.2	C		
13	E 53rd Street & FDR Drive	SB	SBR	R	R	131	-	-	-	-	-
		SWB	SWR	R	R	315	-	-	-	-	-
		Intersection	Unsignalized								
14	E 61st Street & 5th Ave	SB	SBT	T	T	734	0.44	20.1	C	114	148
		WB	WBL	L	L	59	0.06	16.9	B	12	23
		Intersection	Intersection					19.9	B		
15	E 65th Street & 5th Ave	SB	SBL	LT	L	69	-	-	-	-	-
			SBT	T	T	668	0.43	6.6	A	33	39
		EB	EBT	T	T	646	0.72	32.7	C	177	242
			EBR	R	R	198	0.56	32.1	C	113	171
		Intersection	Intersection					19.9	B		
16	E 66th Street & 5th Avenue	SB	SBT	T	T	682	0.52	17.5	B	141	180
			SBR	TR	R	242	-	-	-	-	-
		WB	WBL	LT	L	55	-	-	-	-	-
			WBT	T	T	439	0.56	28.6	C	138	189
		Intersection	Intersection					21.4	C		
17	E 79th Street & 5th Ave	SB	SBL	LT	L	56	-	-	-	-	-
			SBT	T	T	576	0.52	24.5	C	127	167
			SBR	TR	R	64	-	-	-	-	-
		EB	EBT	T	T	336	0.53	33.5	C	96	142
			EBR	R	R	105	0.36	32.6	C	57	104
		WB	WBL	L	L	50	0.51	55.2	E	35	68
			WBT	T	T	353	0.36	22.1	C	83	122
		Intersection	Intersection					27.5	C		
18	E 71st Street & York Ave	NB	NBL	LT	L	9	-	-	-	-	-
			NBT	T	T	151	0.14	17.5	B	40	61
			NBR	TR	R	0	-	-	-	-	-
		SB	SBL	LT	L	0	-	-	-	-	-
			SBT	LTR	T	224	0.23	18.6	B	66	95
			SBR	TR	R	31	-	-	-	-	-
		WB	WBL	L	L	76	0.19	26.5	C	49	79
			WBT	TR	T	176	0.53	33.3	C	176	243
			R		76	-	-	-	-	-	
Intersection	Intersection					24.3	C				

~: the approach is above capacity for the 50th percentile traffic , queue can be longer

#: the volume for the 95th percentile cycle exceeds capacity

m: volume for the 95th percentile queue is metered by an upstream signal

CENTRAL BUSINESSDISTRICT (CBD) TOLLING PROGRAM

# Appendix 4B.6, Traffic Highway Capacity Software Files

2024

AM Peak Hour					
	Performance Measures	Existing Condition	No Action Alternative	With Action Alternative adopted toll structure	Incremental Change
	Hourly Volume				
Northbound	Bayonne	1,075	1,091	1,370	279
	RFK	4,452	4,575	5,108	533
	Eastern Spur I-95 (Pre-ramp)	152	152	204	52
	Merge from 495	641	660	658	-2
	Eastern Spur I-95 (Post-ramp)	793	811	862	50
Southbound	Bayonne	659	678	752	74
	RFK	4,951	5,127	5,548	421
	Eastern Spur I-95 (Pre-ramp)	1,063	1,145	1,154	8
	Diverge to 495	630	627	657	30
	Eastern Spur I-95 (Post-ramp)	433	519	497	-22
	Density (pc/mi/ln)				
Northbound	Bayonne	15.4	15.6	19.2	3.6
	RFK	31.1	32.0	35.7	3.7
	Eastern Spur I-95 (Pre-ramp)	1.4	1.4	1.8	0.4
	Merge from 495	8.2	8.4	8.6	0.2
	Eastern Spur I-95 (Post-ramp)	6.5	6.7	7.0	0.3
Southbound	Bayonne	10.5	10.8	11.7	0.9
	RFK	34.4	35.6	38.5	2.9
	Eastern Spur I-95 (Pre-ramp)	8.6	9.3	9.2	-0.1
	Diverge to 495	8.1	8.7	8.7	0.0
	Eastern Spur I-95 (Post-ramp)	3.4	4.1	3.9	-0.2
	Level of Service (LOS)				
Northbound	Bayonne	B	B	C	-
	RFK	D	D	E	-
	Eastern Spur I-95 (Pre-ramp)	A	A	A	-
	Merge from 495	A	A	A	-
	Eastern Spur I-95 (Post-ramp)	A	A	A	-
Southbound	Bayonne	A	A	B	-
	RFK	D	E	E	-
	Eastern Spur I-95 (Pre-ramp)	A	A	A	-
	Diverge to 495	A	A	A	-
	Eastern Spur I-95 (Post-ramp)	A	A	A	-

MD Peak Hour					
	Performance Measures	Existing Condition	No Action Alternative	With Action Alternative adopted toll structure	Incremental Change
	Hourly Volume				
Northbound	Bayonne	459	434	695	261
	RFK	4,325	4,381	4,656	275
	Eastern Spur I-95 (Pre-ramp)	225	195	263	68
	Merge from 495	572	569	594	25
	Eastern Spur I-95 (Post-ramp)	798	764	857	93
Southbound	Bayonne	592	585	690	105
	RFK	3,430	3,551	4,106	555
	Eastern Spur I-95 (Pre-ramp)	637	629	797	168
	Diverge to 495	596	586	623	37
	Eastern Spur I-95 (Post-ramp)	40	43	174	131
	Density (pc/mi/ln)				
Northbound	Bayonne	7.4	7.0	10.5	3.5
	RFK	30.4	30.8	33.3	2.5
	Eastern Spur I-95 (Pre-ramp)	1.9	1.7	2.3	0.6
	Merge from 495	8.3	8.1	8.5	0.4
	Eastern Spur I-95 (Post-ramp)	6.8	6.5	7.1	0.6
Southbound	Bayonne	9.8	9.6	11.0	1.4
	RFK	24.7	25.6	29.4	3.8
	Eastern Spur I-95 (Pre-ramp)	5.4	5.3	6.6	1.3
	Diverge to 495	5.1	5.0	6.2	1.2
	Eastern Spur I-95 (Post-ramp)	0.4	0.4	1.3	0.9
	Level of Service (LOS)				
Northbound	Bayonne	A	A	A	-
	RFK	D	D	D	-
	Eastern Spur I-95 (Pre-ramp)	A	A	A	-
	Merge from 495	A	A	A	-
	Eastern Spur I-95 (Post-ramp)	A	A	A	-
Southbound	Bayonne	A	A	A	-
	RFK	C	C	D	-
	Eastern Spur I-95 (Pre-ramp)	A	A	A	-
	Diverge to 495	A	A	A	-
	Eastern Spur I-95 (Post-ramp)	A	A	A	-

PM Peak Hour					
	Performance Measures	Existing Condition	No Action Alternative	With Action Alternative adopted toll structure	Incremental Change
	Hourly Volume				
Northbound	Bayonne	563	570	735	165
	RFK	4,710	4,704	5,251	548
	Eastern Spur I-95 (Pre-ramp)	418	436	498	62
	Merge from 495	805	805	852	47
	Eastern Spur I-95 (Post-ramp)	1,223	1,241	1,350	109
Southbound	Bayonne	791	814	984	170
	RFK	4,159	4,344	4,974	629
	Eastern Spur I-95 (Pre-ramp)	801	792	827	35
	Diverge to 495	761	755	786	31
	Eastern Spur I-95 (Post-ramp)	40	37	41	4
	Density (pc/mi/ln)				
Northbound	Bayonne	7.8	7.9	10.0	2.1
	RFK	31.3	31.2	35.1	3.9
	Eastern Spur I-95 (Pre-ramp)	3.1	3.2	3.7	0.5
	Merge from 495	10.4	10.5	11.1	0.6
	Eastern Spur I-95 (Post-ramp)	9.1	9.2	10.0	0.8
Southbound	Bayonne	11.2	11.6	13.7	2.1
	RFK	27.9	29.1	33.3	4.2
	Eastern Spur I-95 (Pre-ramp)	5.9	5.9	6.2	0.3
	Diverge to 495	5.6	5.5	5.8	0.3
	Eastern Spur I-95 (Post-ramp)	0.3	0.3	0.3	0.0
	Level of Service (LOS)				
Northbound	Bayonne	A	A	A	-
	RFK	D	D	E	-
	Eastern Spur I-95 (Pre-ramp)	A	A	A	-
	Merge from 495	A	A	B	-
	Eastern Spur I-95 (Post-ramp)	A	A	A	-
Southbound	Bayonne	B	B	B	-
	RFK	D	D	D	-
	Eastern Spur I-95 (Pre-ramp)	A	A	A	-
	Diverge to 495	A	A	A	-
	Eastern Spur I-95 (Post-ramp)	A	A	A	-

LN Peak Hour					
	Performance Measures	Existing Condition	No Action Alternative	With Action Alternative adopted toll structure	Incremental Change
	Hourly Volume				
Northbound	Bayonne	173	175	185	10
	RFK	847	866	935	69
	Eastern Spur I-95 (Pre-ramp)	15	16	14	-2
	Merge from 495	341	343	349	6
	Eastern Spur I-95 (Post-ramp)	356	360	363	4
Southbound	Bayonne	207	207	223	16
	RFK	833	847	1,455	607
	Eastern Spur I-95 (Pre-ramp)	347	354	364	10
	Diverge to 495	334	340	351	11
	Eastern Spur I-95 (Post-ramp)	13	14	12	-1
	Density (pc/mi/ln)				
Northbound	Bayonne	2.6	2.6	2.7	0.1
	RFK	6.1	6.1	6.8	0.7
	Eastern Spur I-95 (Pre-ramp)	0.1	0.2	0.1	-0.1
	Merge from 495	4.5	4.5	4.5	0.0
	Eastern Spur I-95 (Post-ramp)	2.8	2.8	2.8	0.0
Southbound	Bayonne	3.3	3.3	3.5	0.2
	RFK	5.9	6.3	10.0	3.7
	Eastern Spur I-95 (Pre-ramp)	2.7	2.7	2.8	0.1
	Diverge to 495	2.5	2.6	2.6	0.0
	Eastern Spur I-95 (Post-ramp)	0.1	0.1	0.1	0.0
	Level of Service (LOS)				
Northbound	Bayonne	A	A	A	-
	RFK	A	A	A	-
	Eastern Spur I-95 (Pre-ramp)	A	A	A	-
	Merge from 495	A	A	A	-
	Eastern Spur I-95 (Post-ramp)	A	A	A	-
Southbound	Bayonne	A	A	A	-
	RFK	A	A	A	-
	Eastern Spur I-95 (Pre-ramp)	A	A	A	-
	Diverge to 495	A	A	A	-
	Eastern Spur I-95 (Post-ramp)	A	A	A	-

## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	AM
Project Description	Bayonne NB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.00		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.909	1603	4400	0.36	41.8	19.2	C

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	19.2	17.5	1.40	C

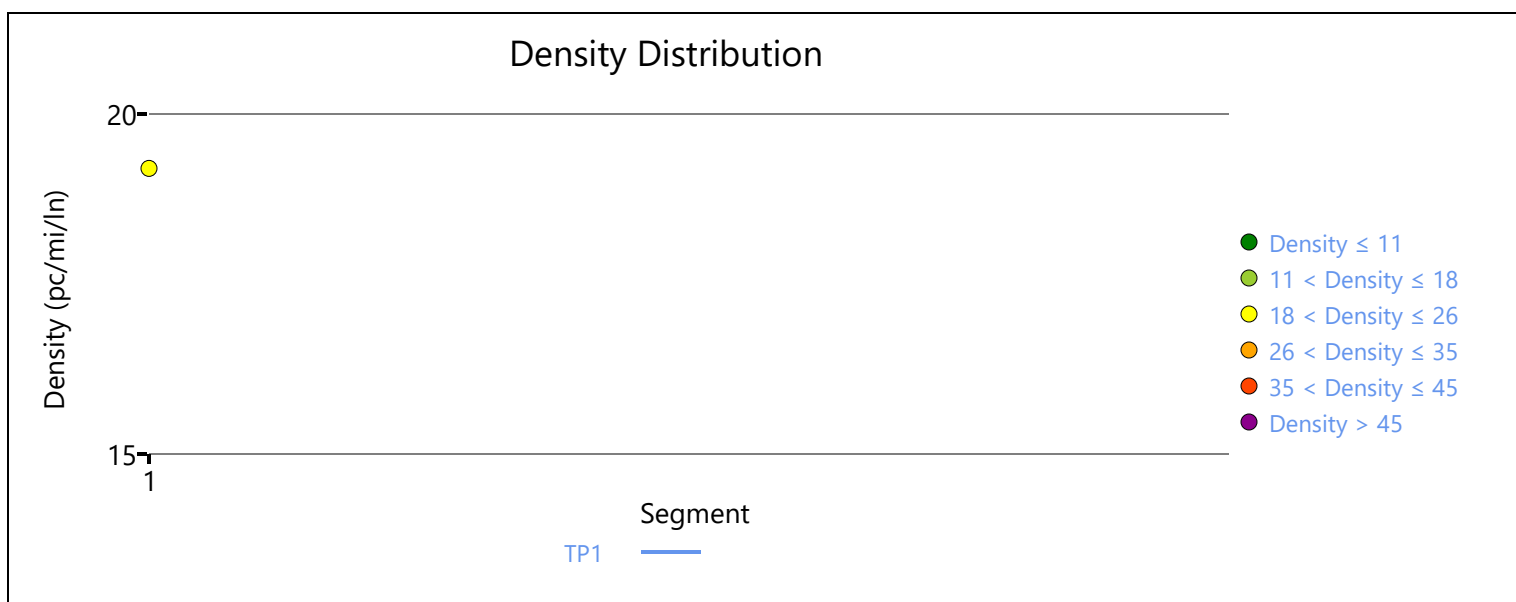
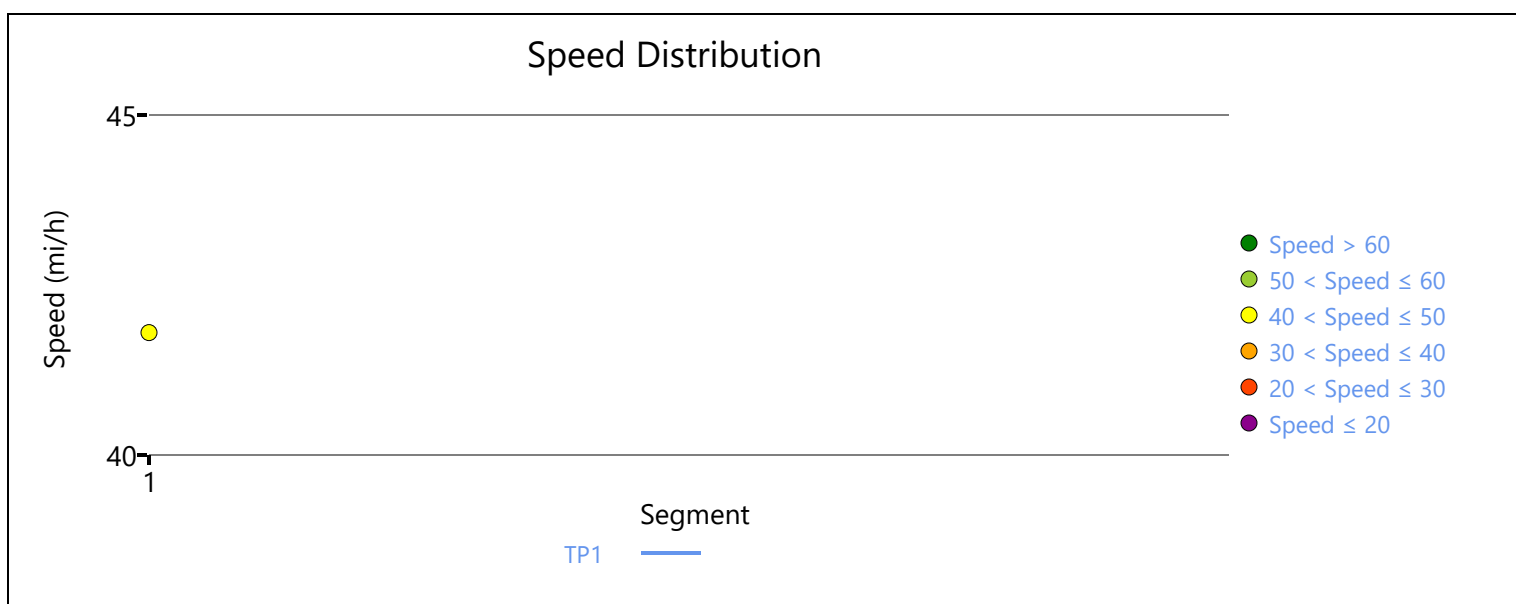
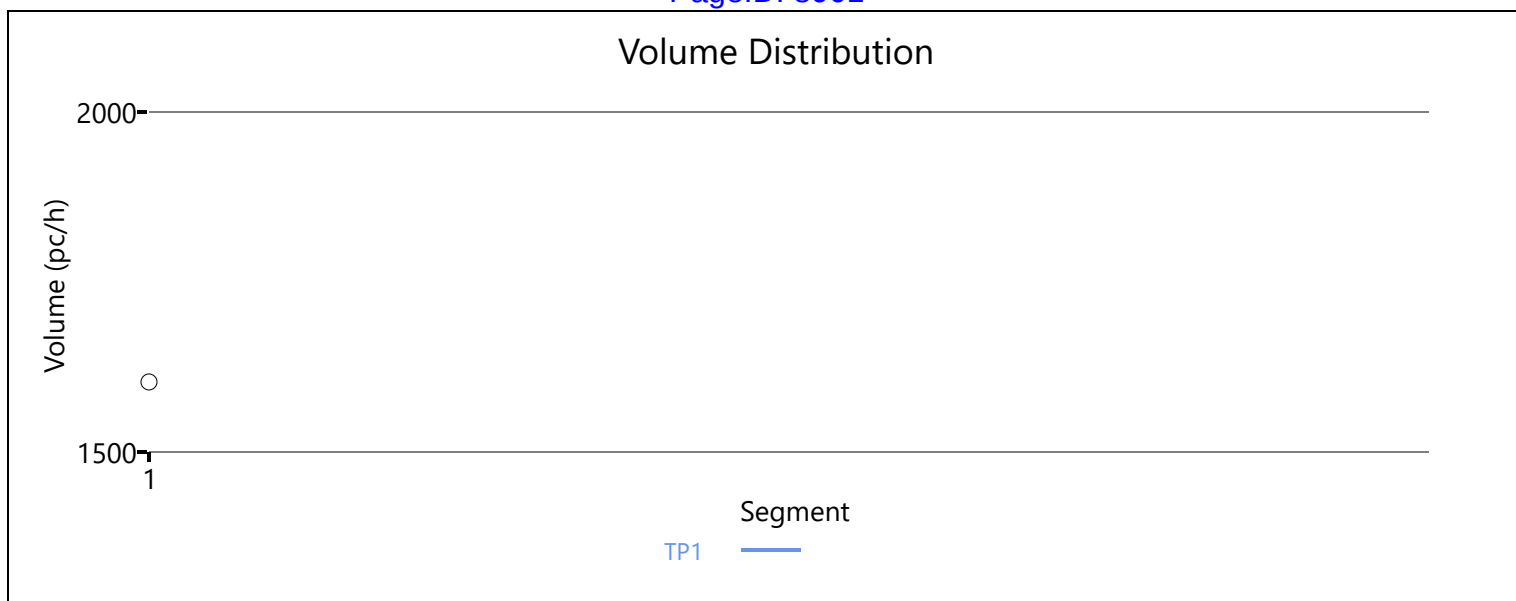
## Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	17.5
Average Travel Time, min	1.40	Density, pc/mi/ln	19.2

## Messages

## Comments





## HCS7 Freeway Facilities Report

**Project Information**

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	AM
Project Description	Bayonne SB	Units	U.S. Customary

**Facility Global Input**

Jam Density, pc/mi/lane	190.0	Density at Capacity, pc/mi/lane	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.00		

**Facility Segment Data**

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

**Facility Segment Data****Segment 1: Basic**

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/lane)	LOS
1	0.94	0.817	979	4400	0.22	41.8	11.7	B

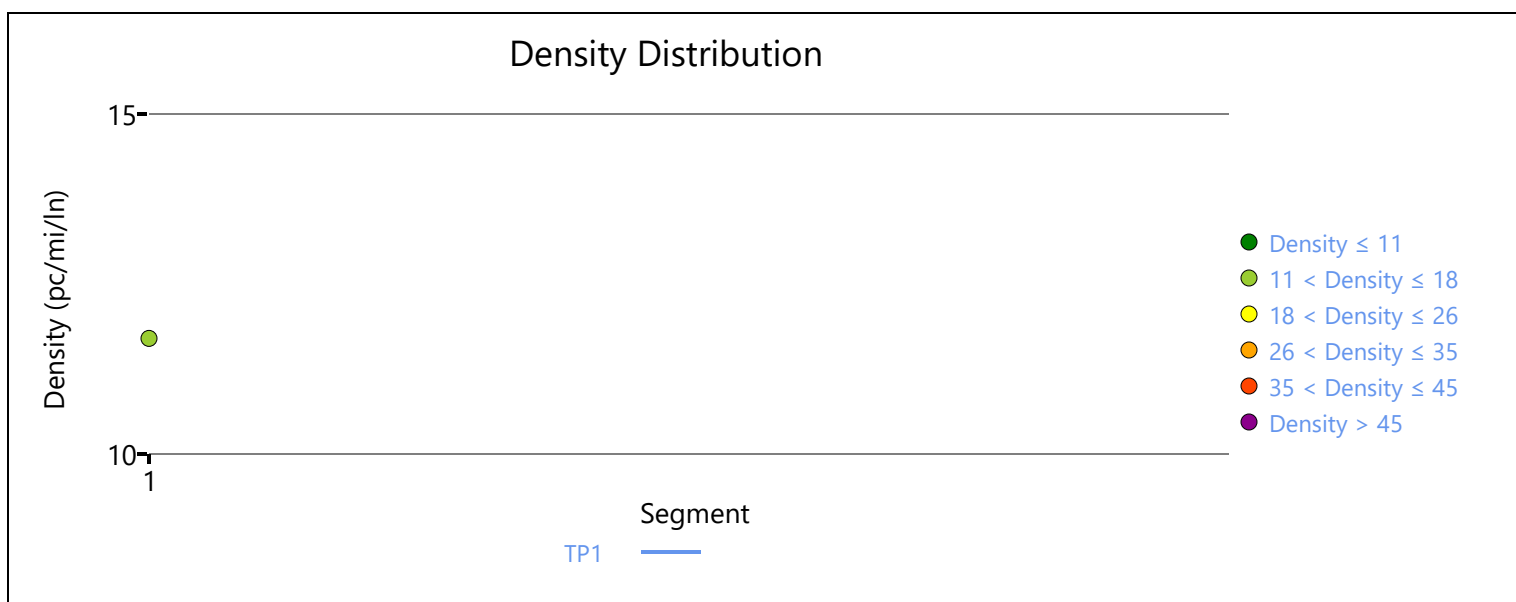
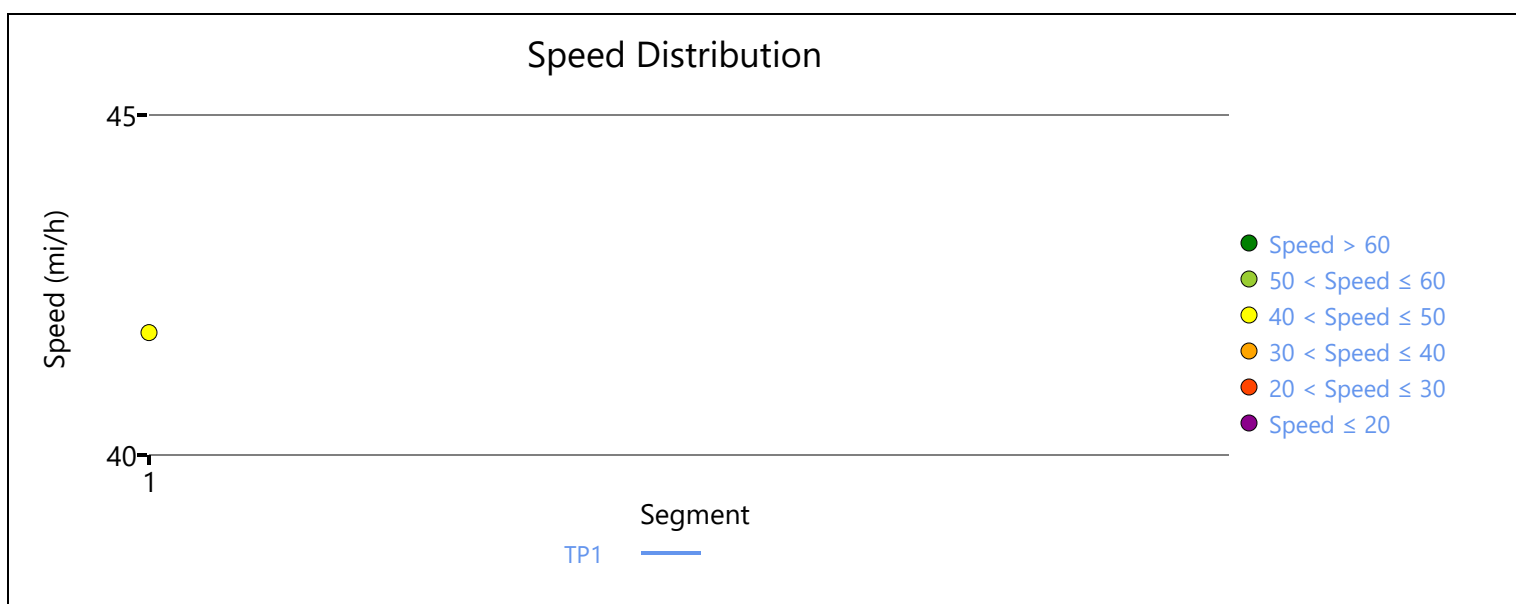
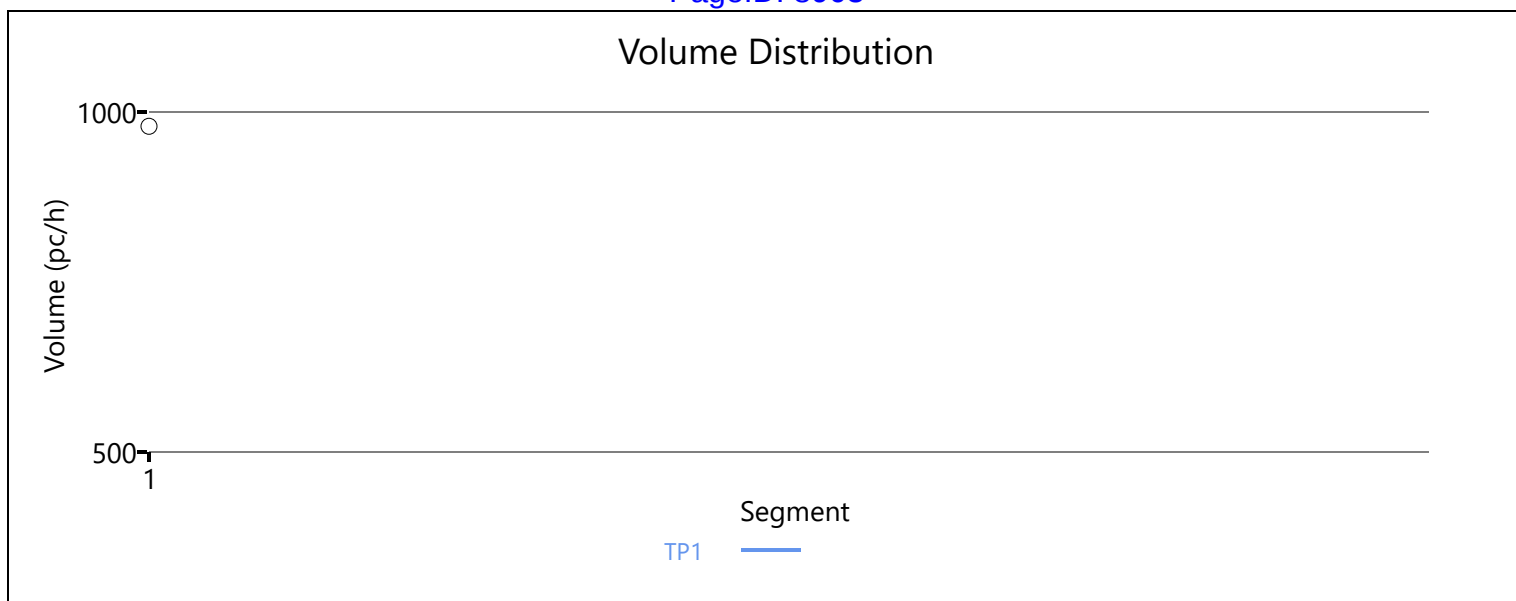
**Facility Analysis Results**

AP	Speed, mi/h	Density, pc/mi/lane	Density, veh/mi/lane	Travel Time, min	LOS
1	41.8	11.7	9.6	1.40	B

**Facility Overall Results**

Space Mean Speed, mi/h	41.8	Density, veh/mi/lane	9.6
Average Travel Time, min	1.40	Density, pc/mi/lane	11.7

**Messages****Comments**



## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	MD
Project Description	Bayonne NB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.00		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.846	874	4400	0.20	41.8	10.5	A

## Facility Analysis Results

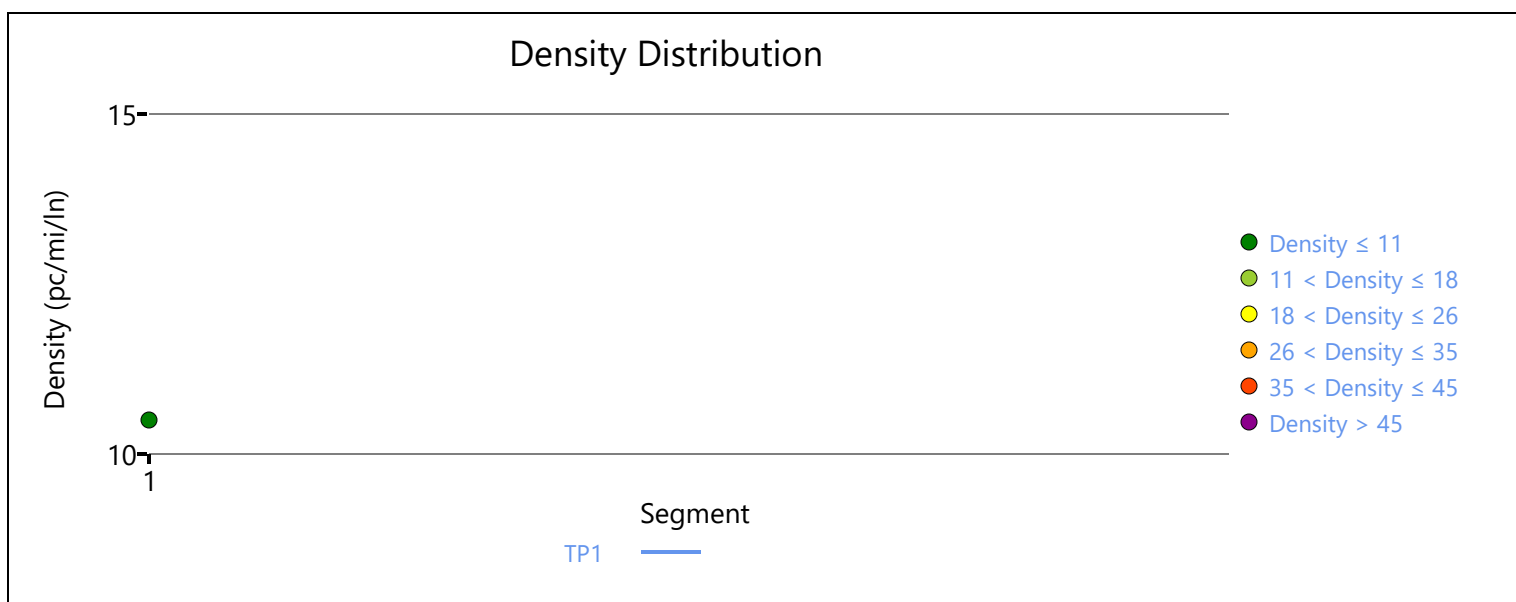
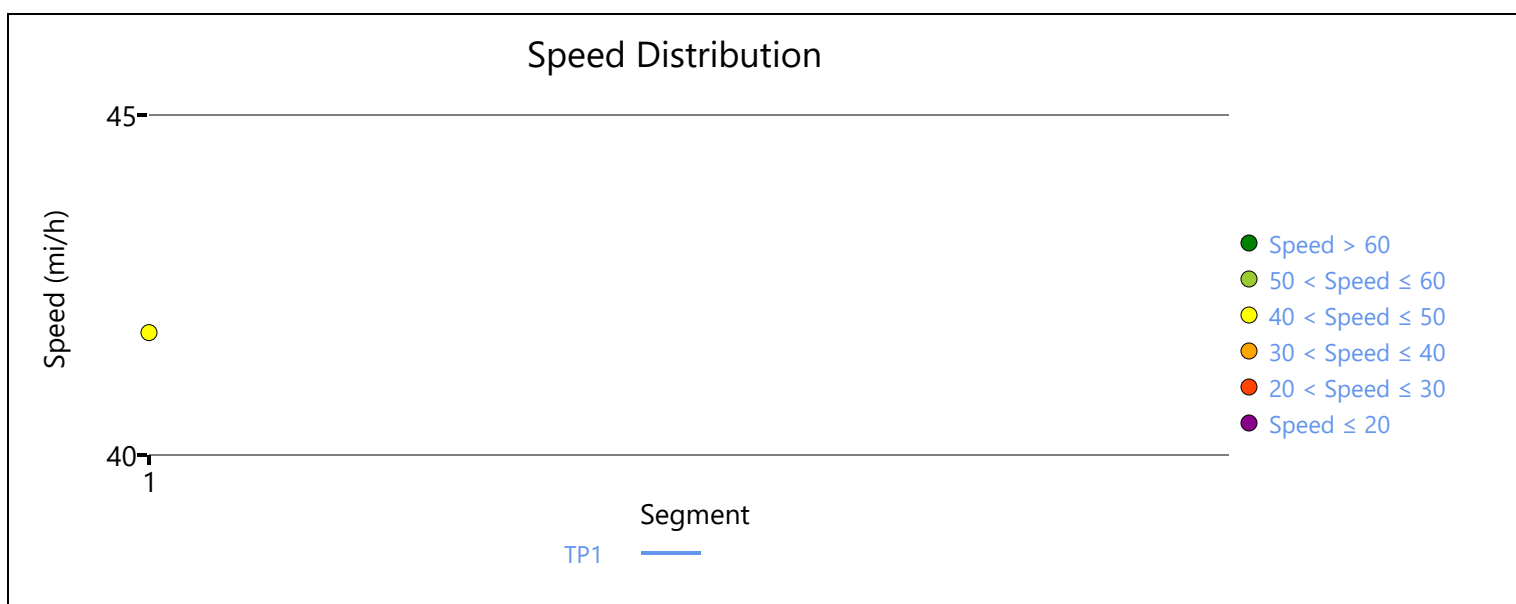
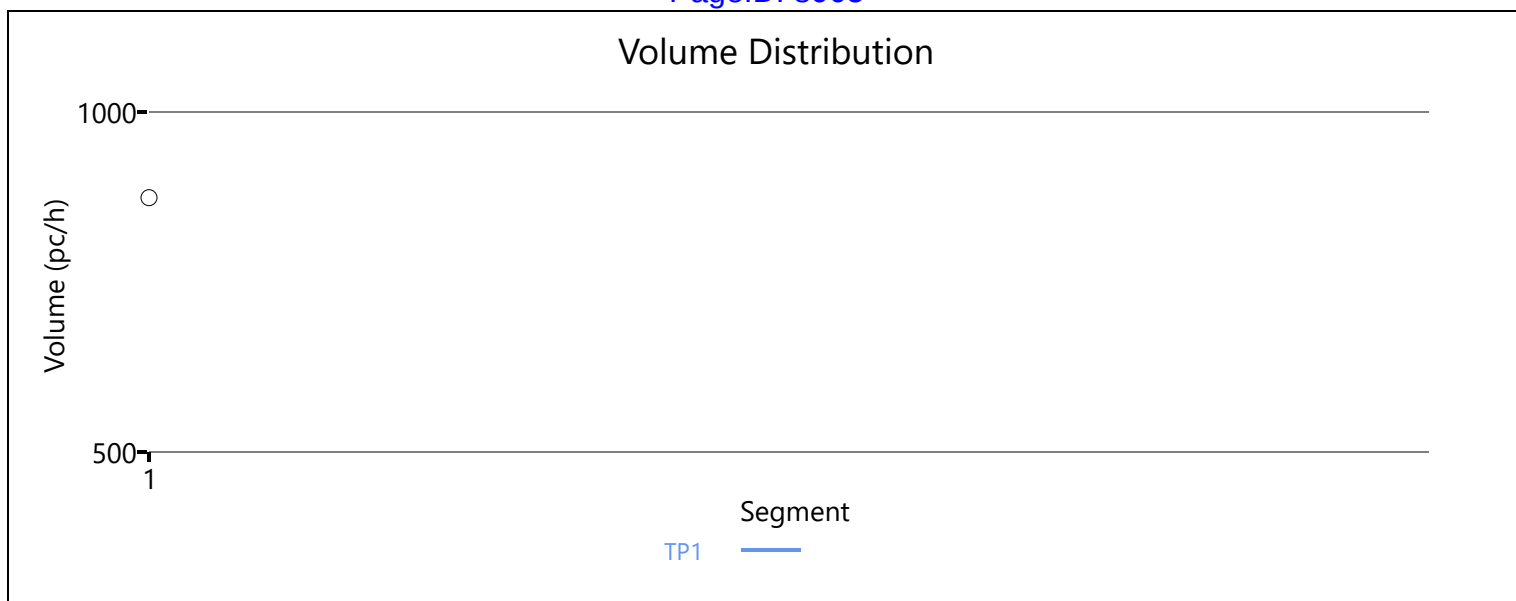
AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	10.5	8.9	1.40	A

## Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	8.9
Average Travel Time, min	1.40	Density, pc/mi/ln	10.5

## Messages

## Comments



## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	MD
Project Description	Bayonne SB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.00		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.797	921	4400	0.21	41.8	11.0	A

## Facility Analysis Results

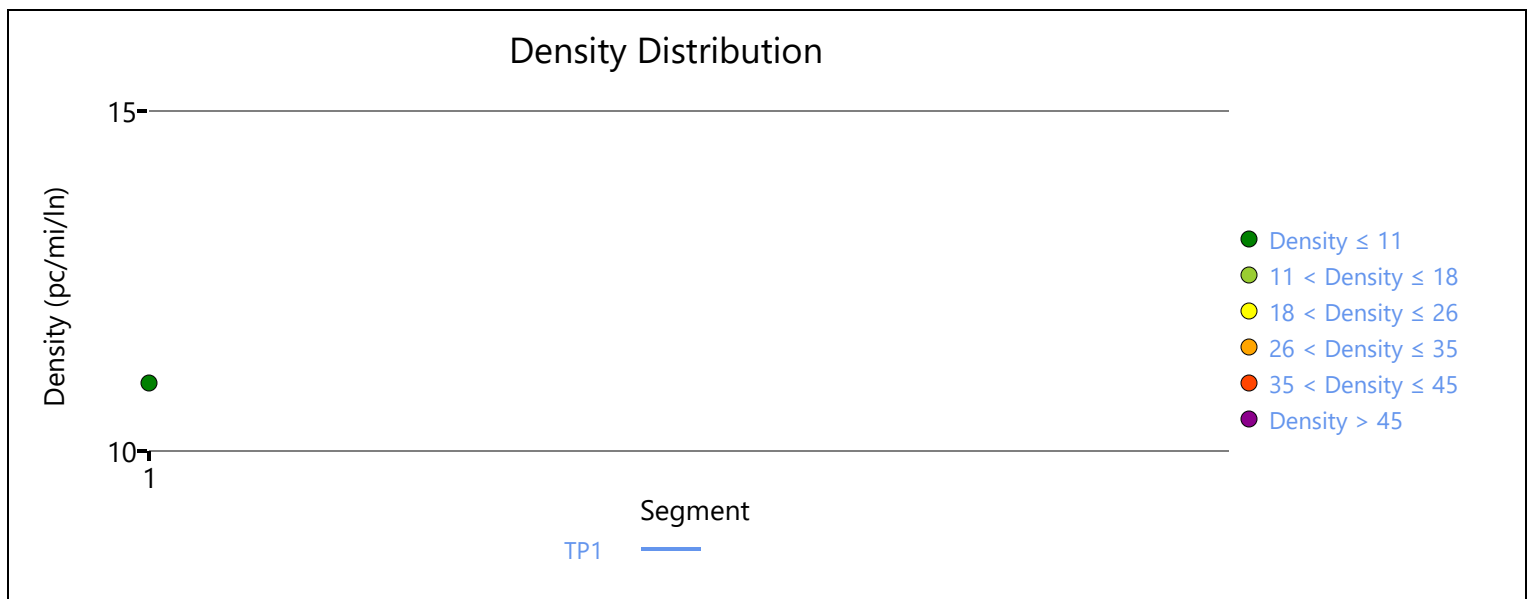
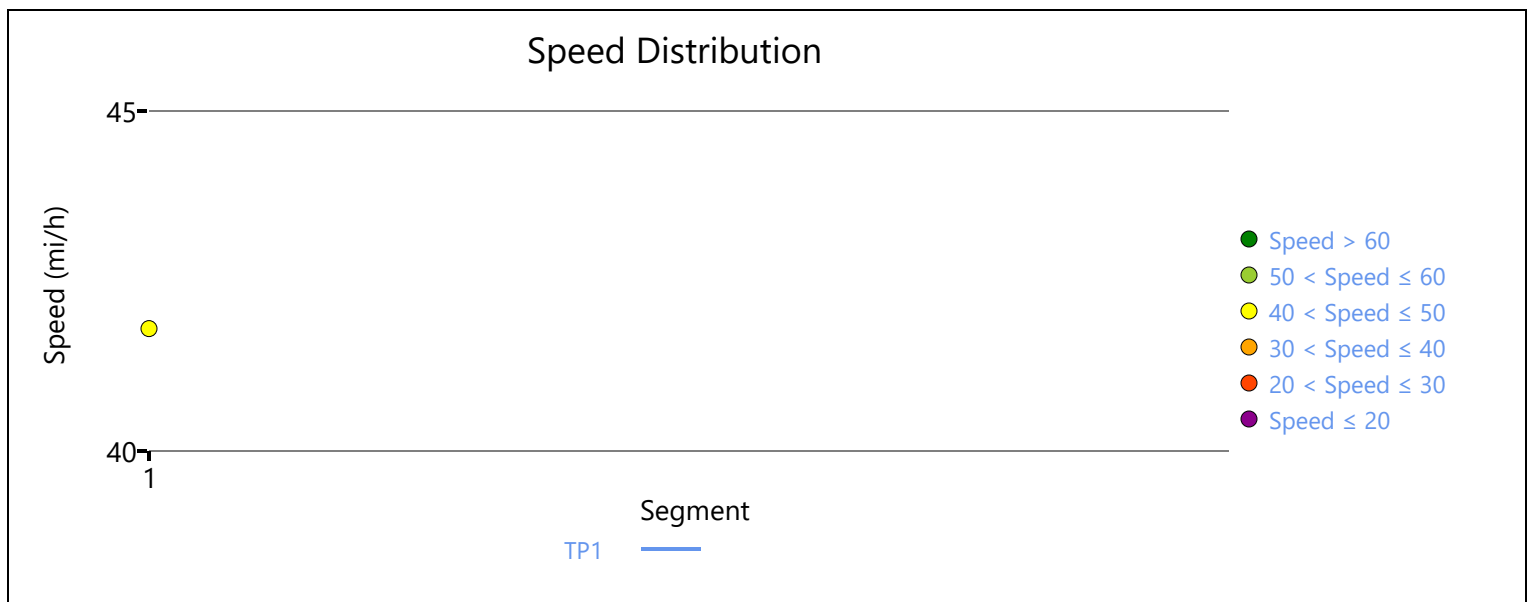
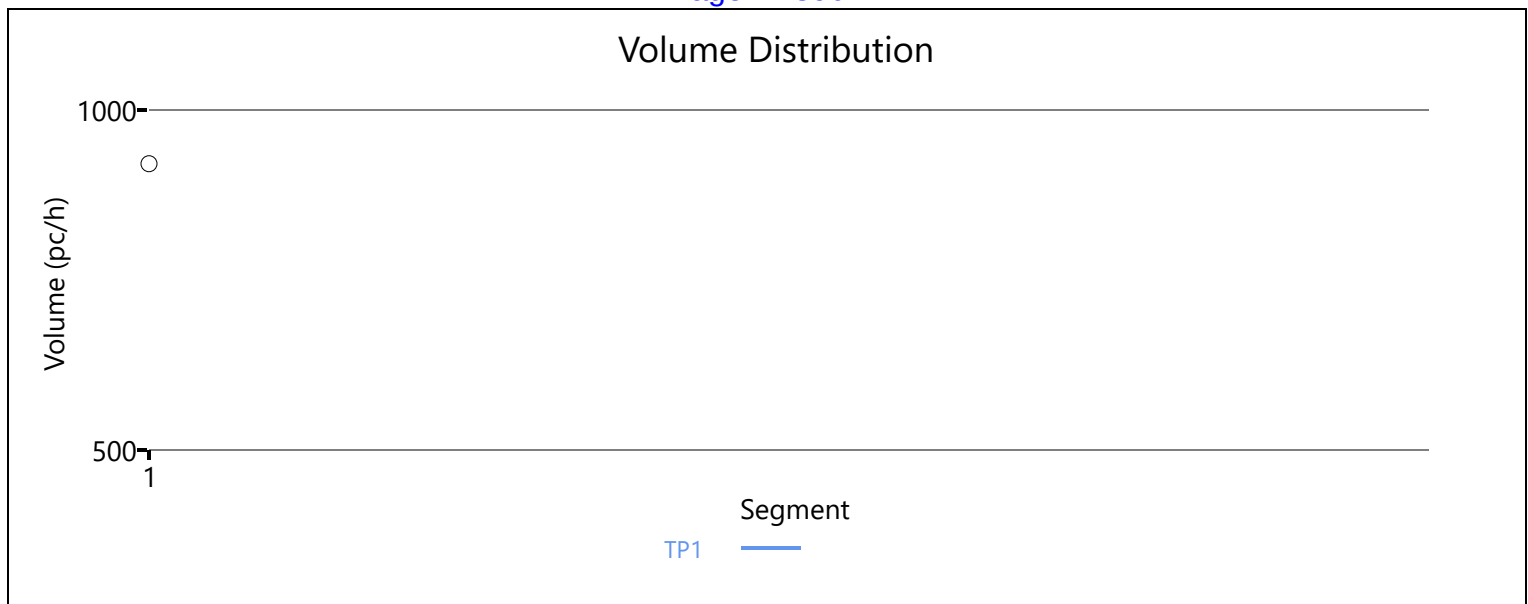
AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	11.0	8.8	1.40	A

## Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	8.8
Average Travel Time, min	1.40	Density, pc/mi/ln	11.0

## Messages

## Comments



## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	PM
Project Description	Bayonne NB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.00		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.933	838	4400	0.19	41.8	10.0	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	10.0	9.3	1.40	A

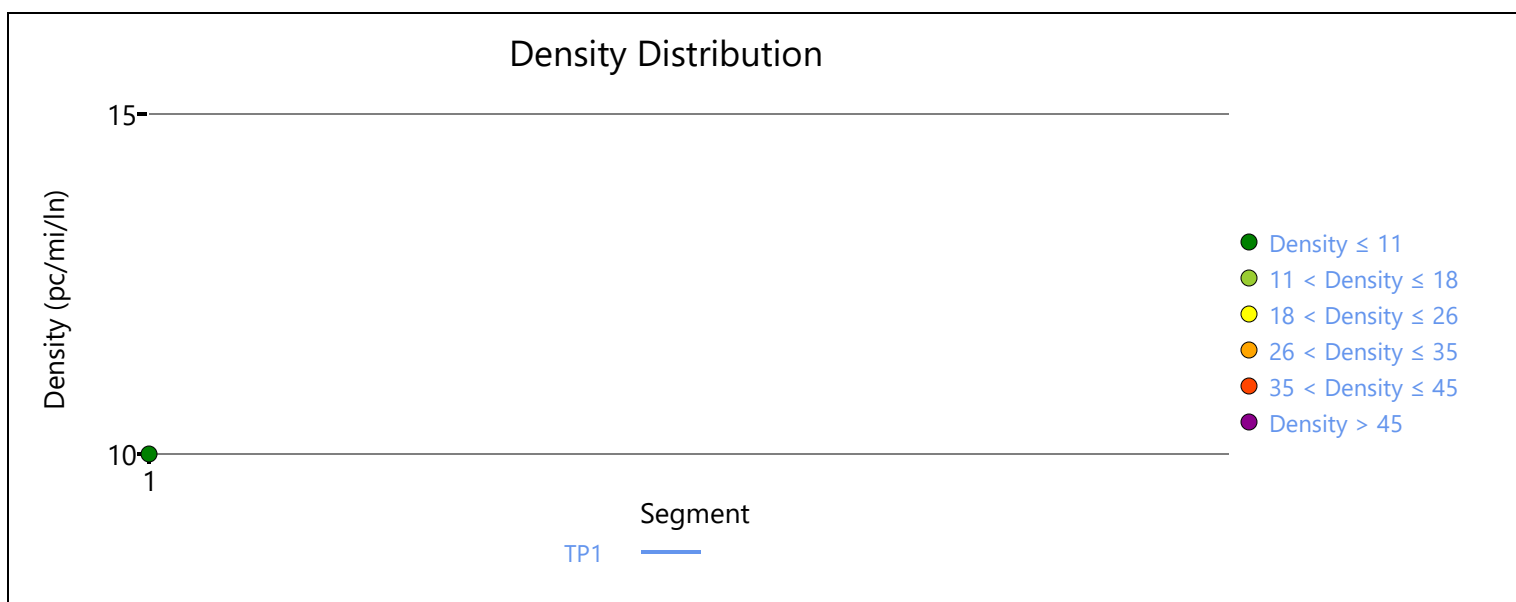
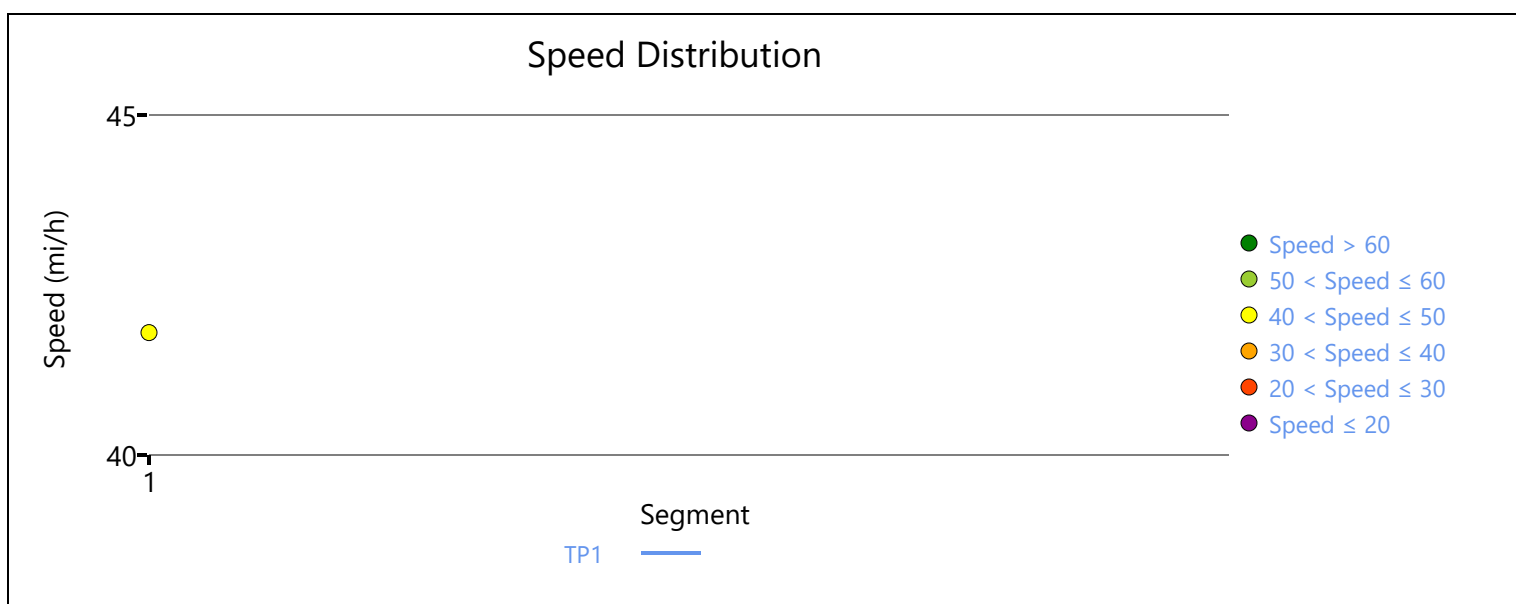
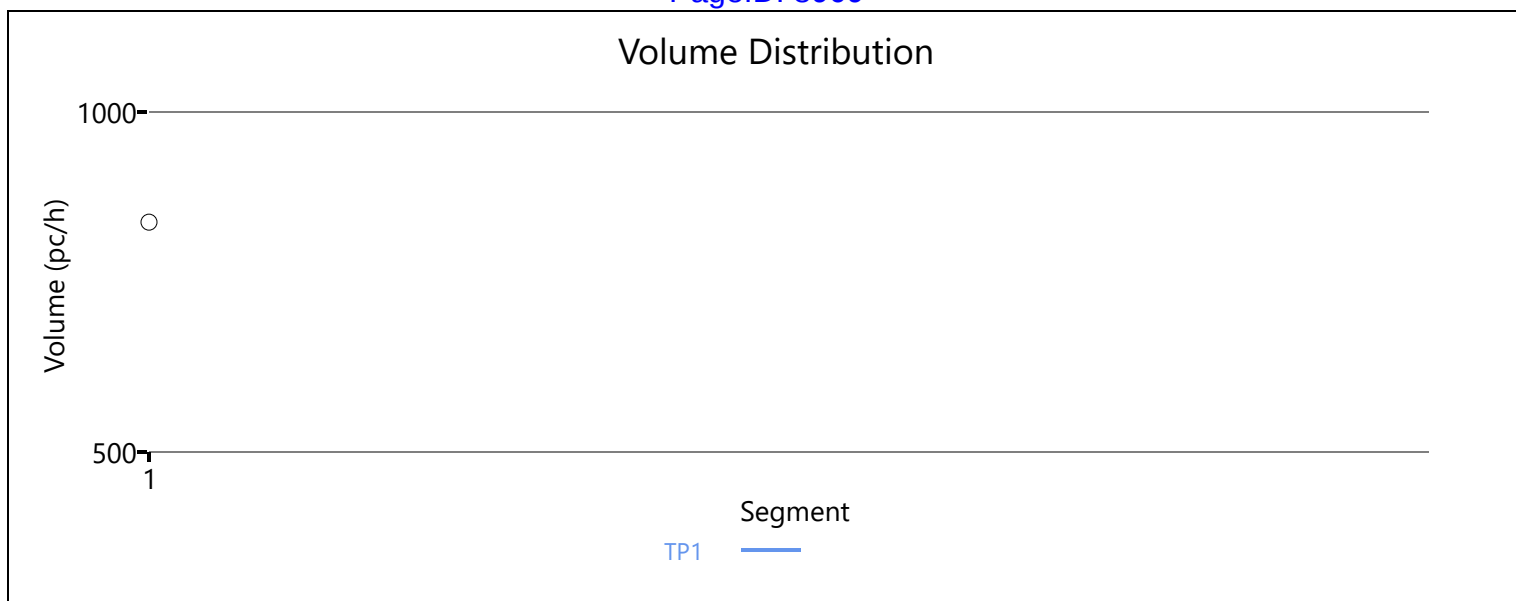
## Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	9.3
Average Travel Time, min	1.40	Density, pc/mi/ln	10.0

## Messages

## Comments





## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	PM
Project Description	Bayonne SB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.00		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.912	1148	4400	0.26	41.8	13.7	B

## Facility Analysis Results

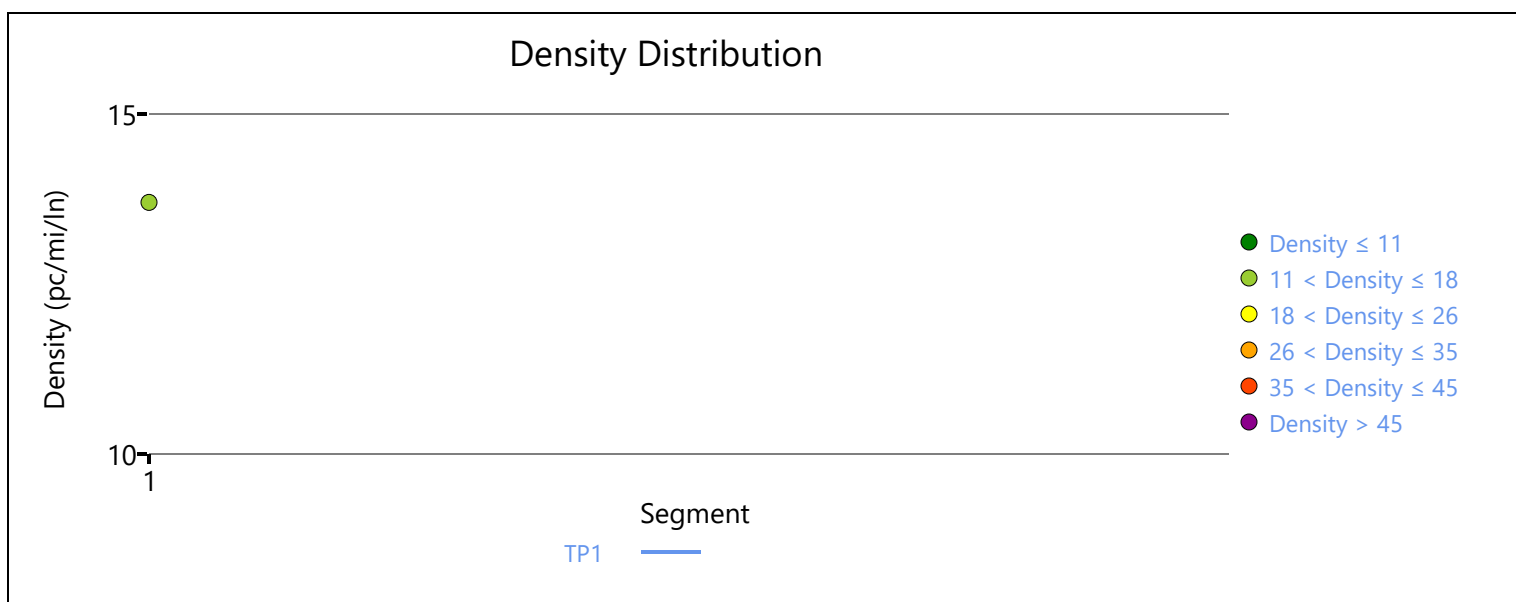
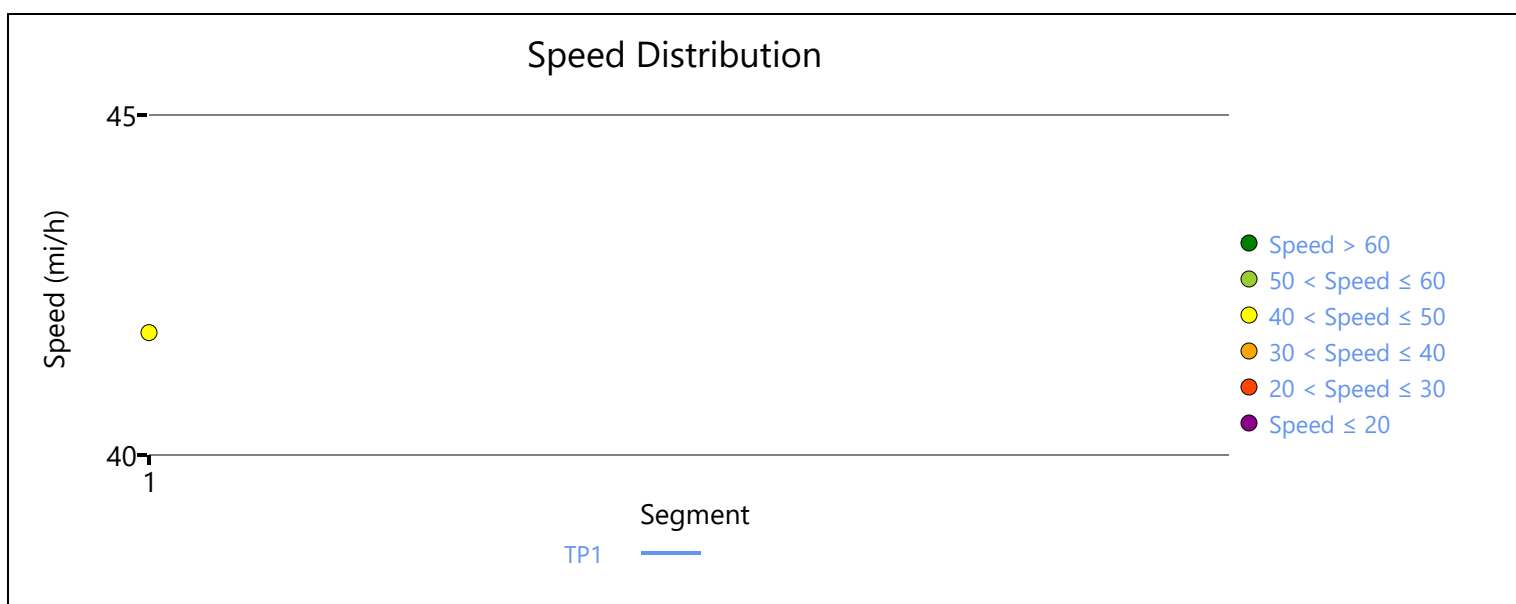
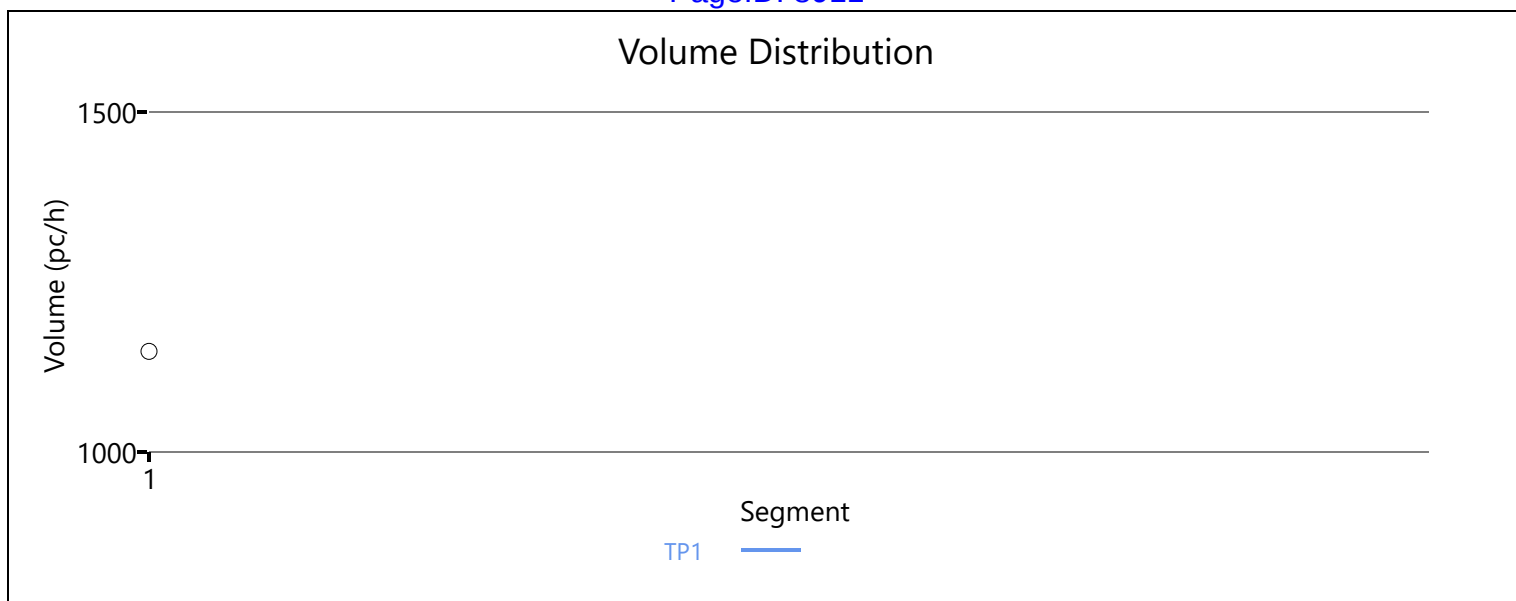
AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	13.7	12.5	1.40	B

## Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	12.5
Average Travel Time, min	1.40	Density, pc/mi/ln	13.7

## Messages

## Comments



## HCS7 Freeway Facilities Report

**Project Information**

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	LN
Project Description	Bayonne NB	Units	U.S. Customary

**Facility Global Input**

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.00		

**Facility Segment Data**

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

**Facility Segment Data****Segment 1: Basic**

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.865	228	4400	0.05	41.8	2.7	A

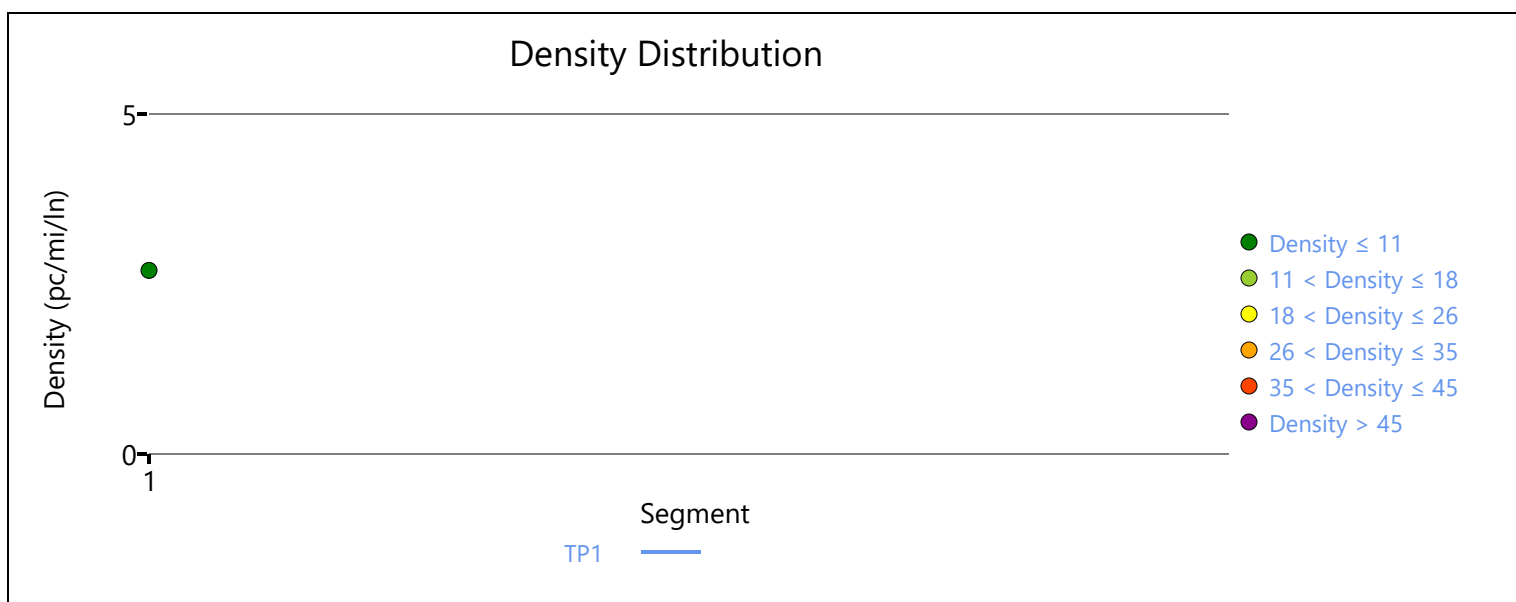
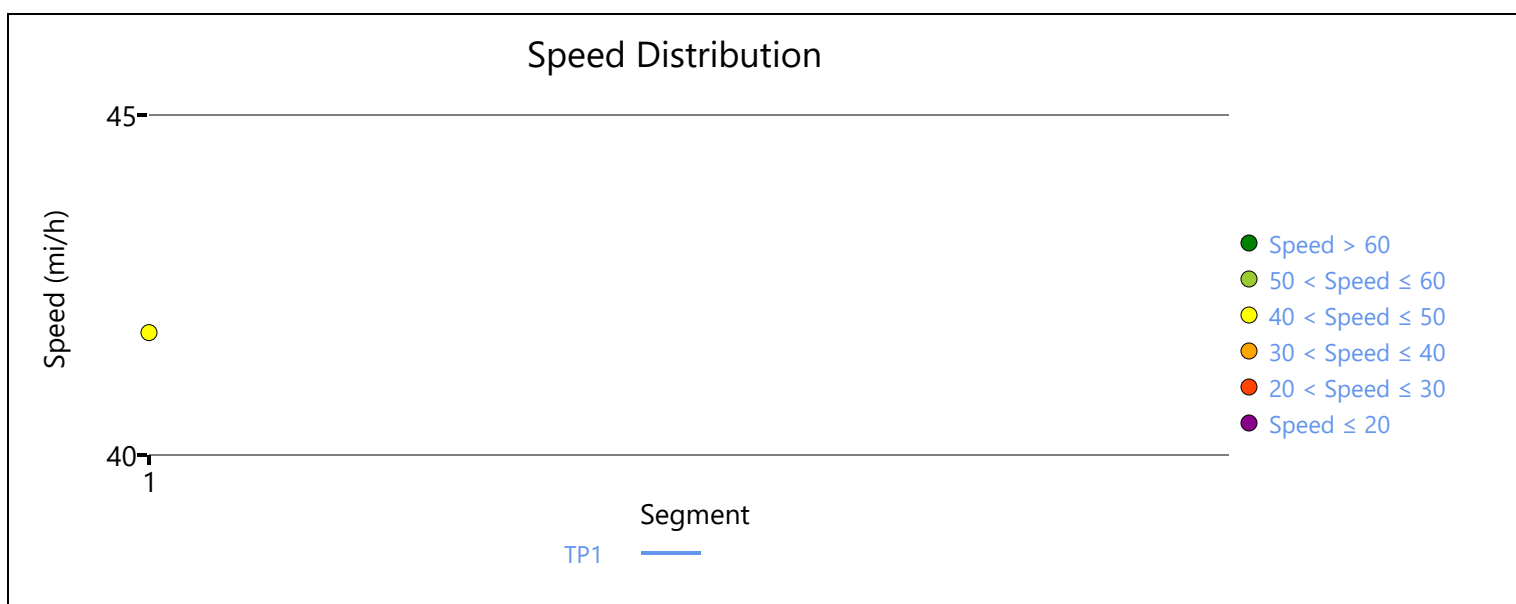
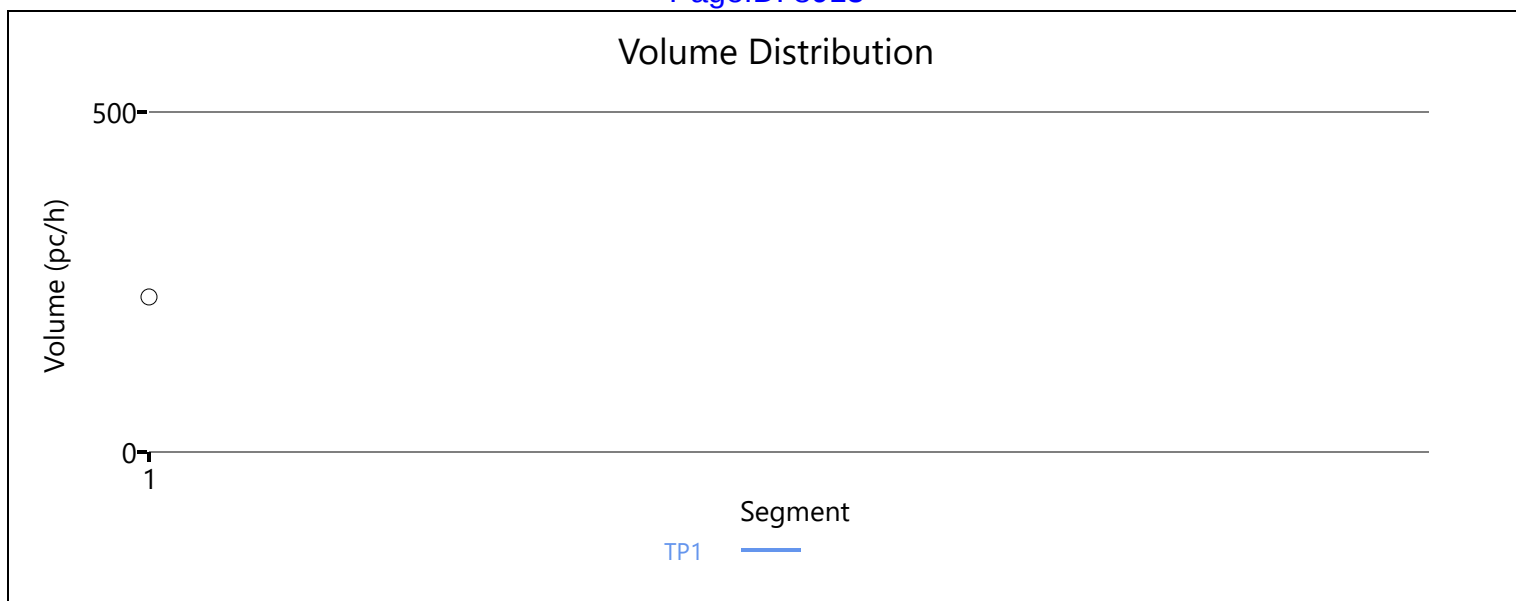
**Facility Analysis Results**

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	2.7	2.3	1.40	A

**Facility Overall Results**

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	2.3
Average Travel Time, min	1.40	Density, pc/mi/ln	2.7

**Messages****Comments**



## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	LN
Project Description	Bayonne SB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.00		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		5280	2

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.809	293	4400	0.07	41.8	3.5	A

## Facility Analysis Results

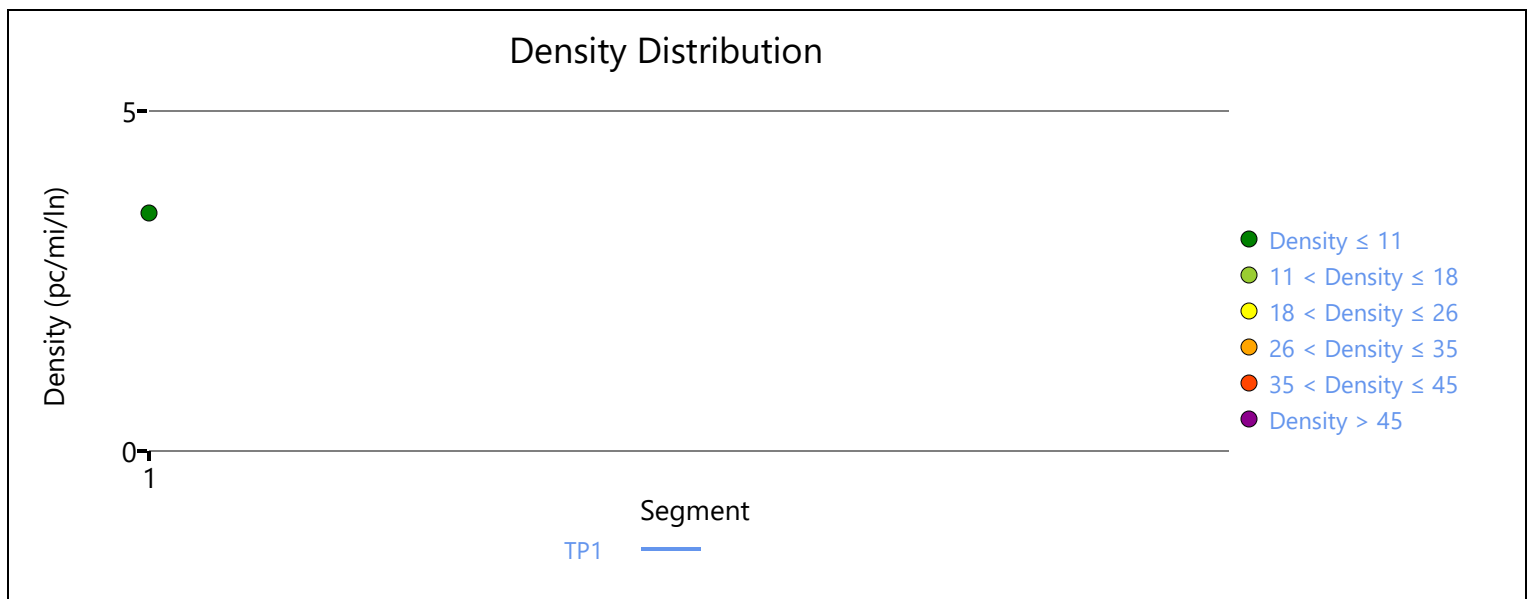
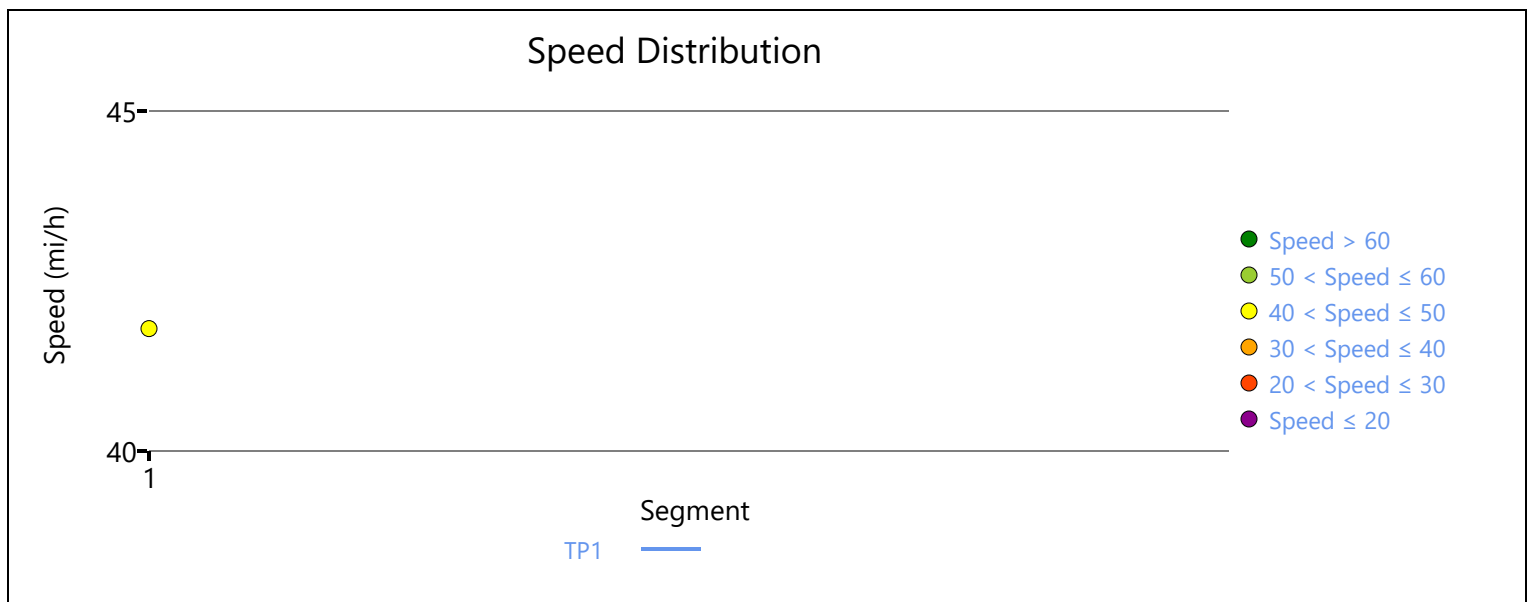
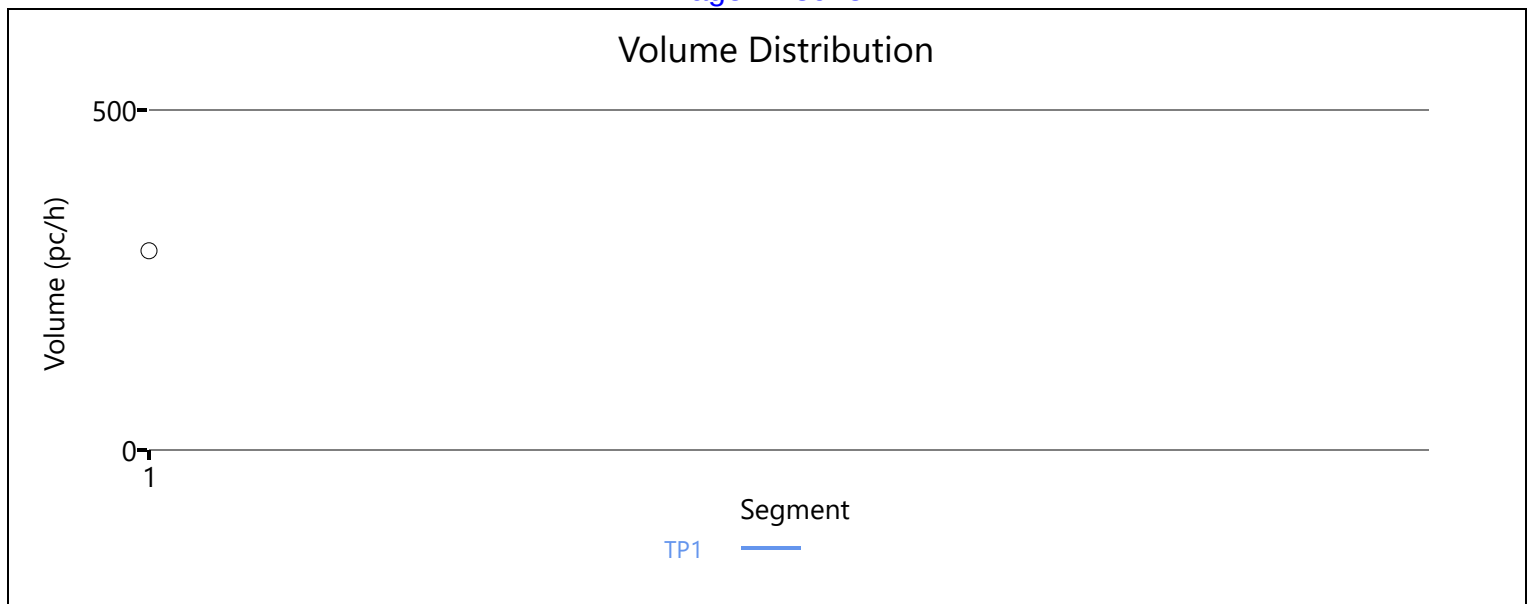
AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	3.5	2.8	1.40	A

## Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	2.8
Average Travel Time, min	1.40	Density, pc/mi/ln	3.5

## Messages

## Comments



## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	AM
Project Description	RFK NB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.69		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.909	5978	8800	0.68	41.8	35.7	E

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	35.7	32.5	1.00	E

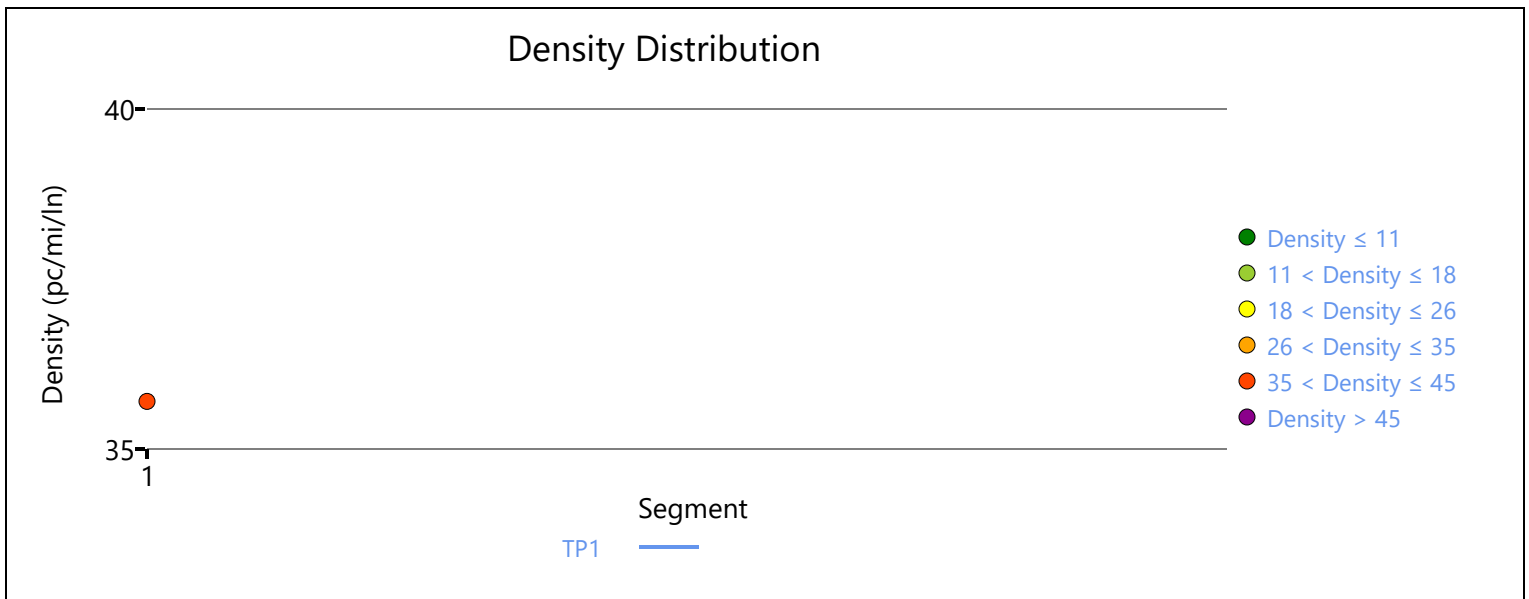
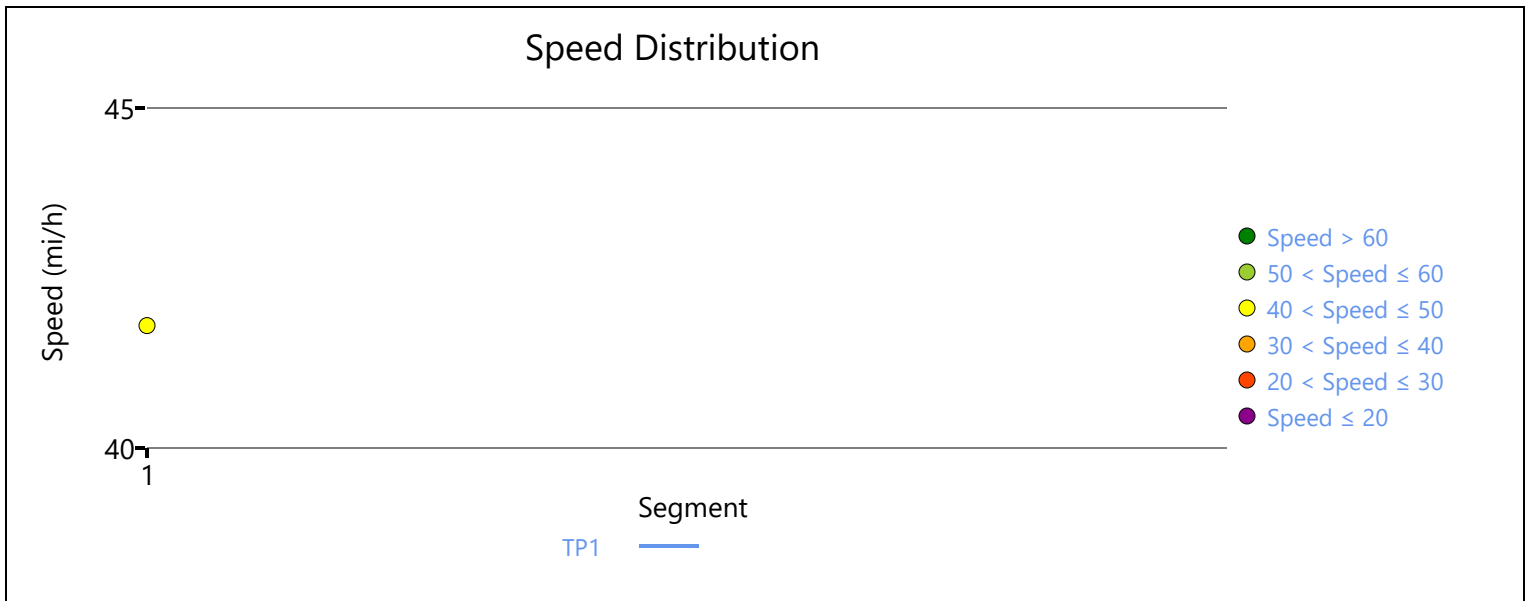
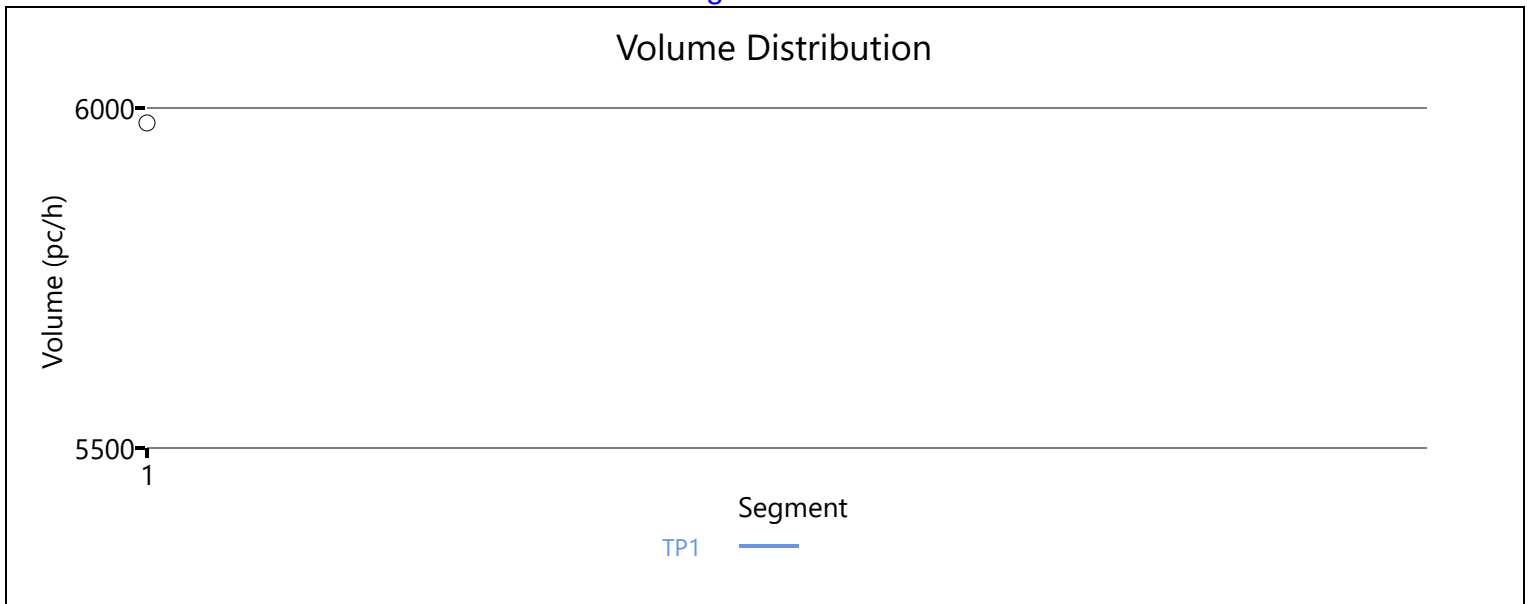
## Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	32.5
Average Travel Time, min	1.00	Density, pc/mi/ln	35.7

## Messages

## Comments





## HCS7 Freeway Facilities Report

**Project Information**

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	AM
Project Description	RFK SB	Units	U.S. Customary

**Facility Global Input**

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.69		

**Facility Segment Data**

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

**Facility Segment Data****Segment 1: Basic**

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.917	6436	8800	0.73	41.8	38.5	E

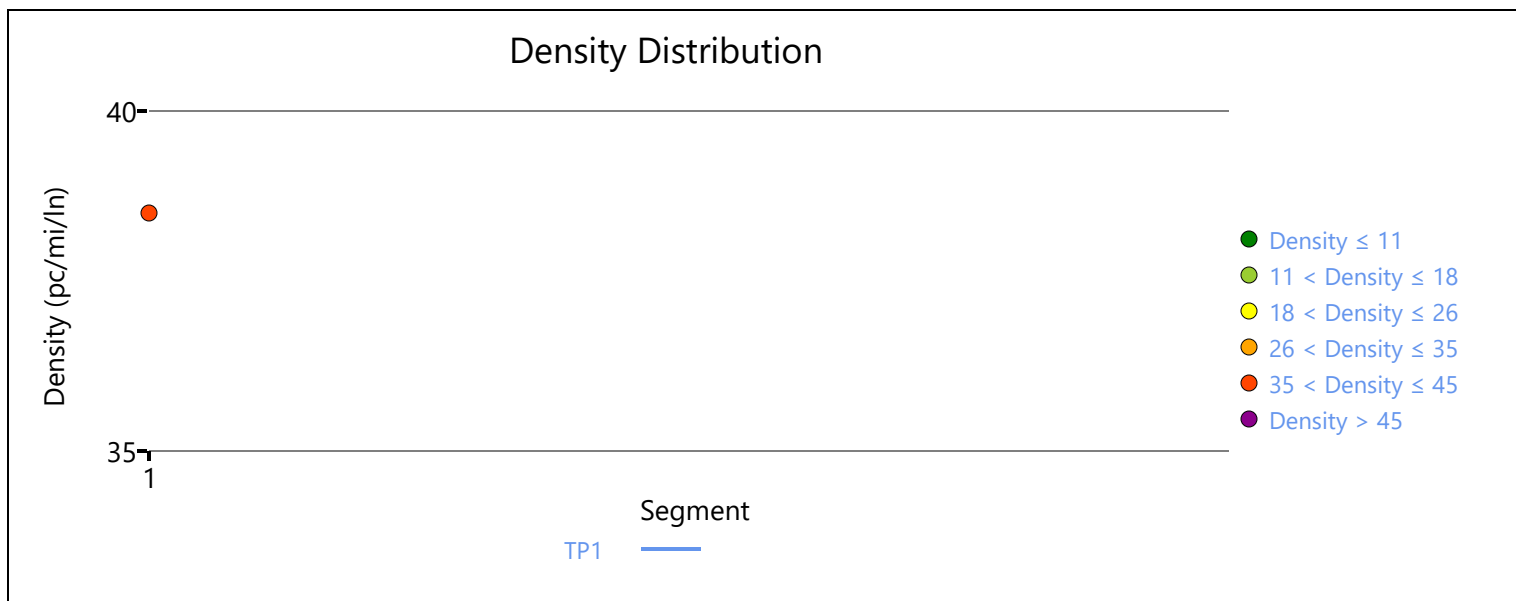
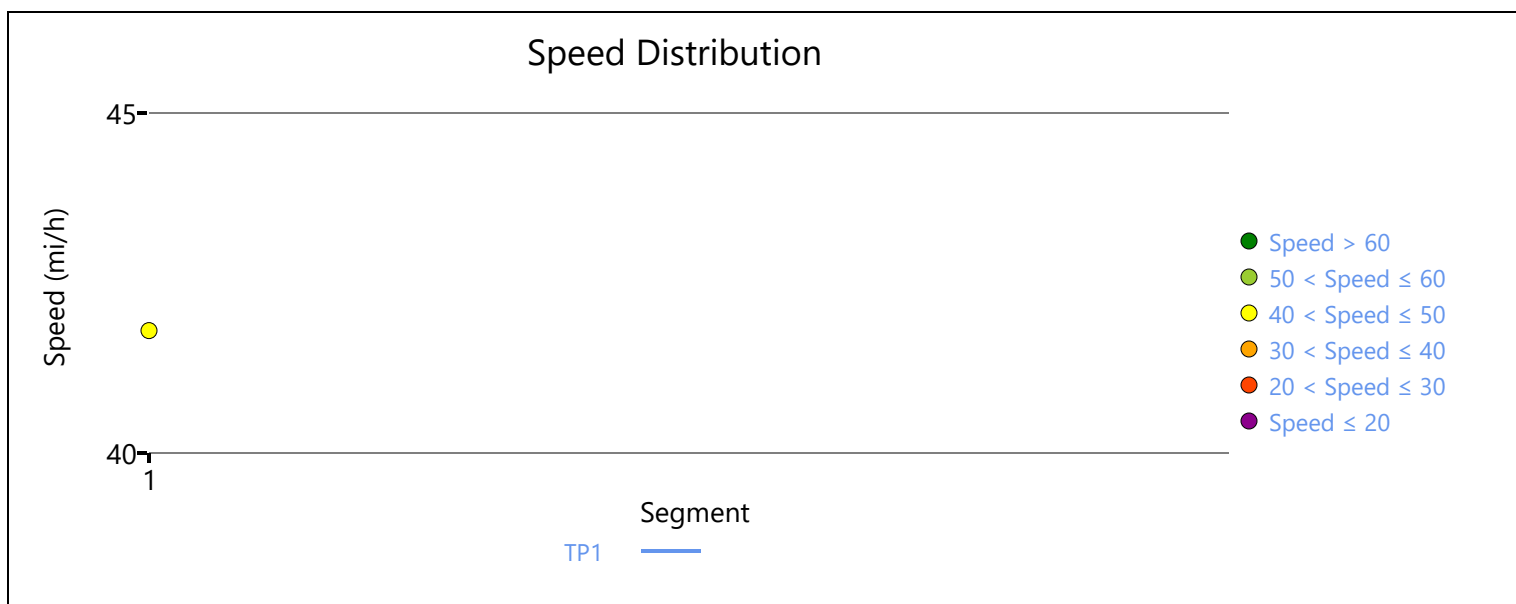
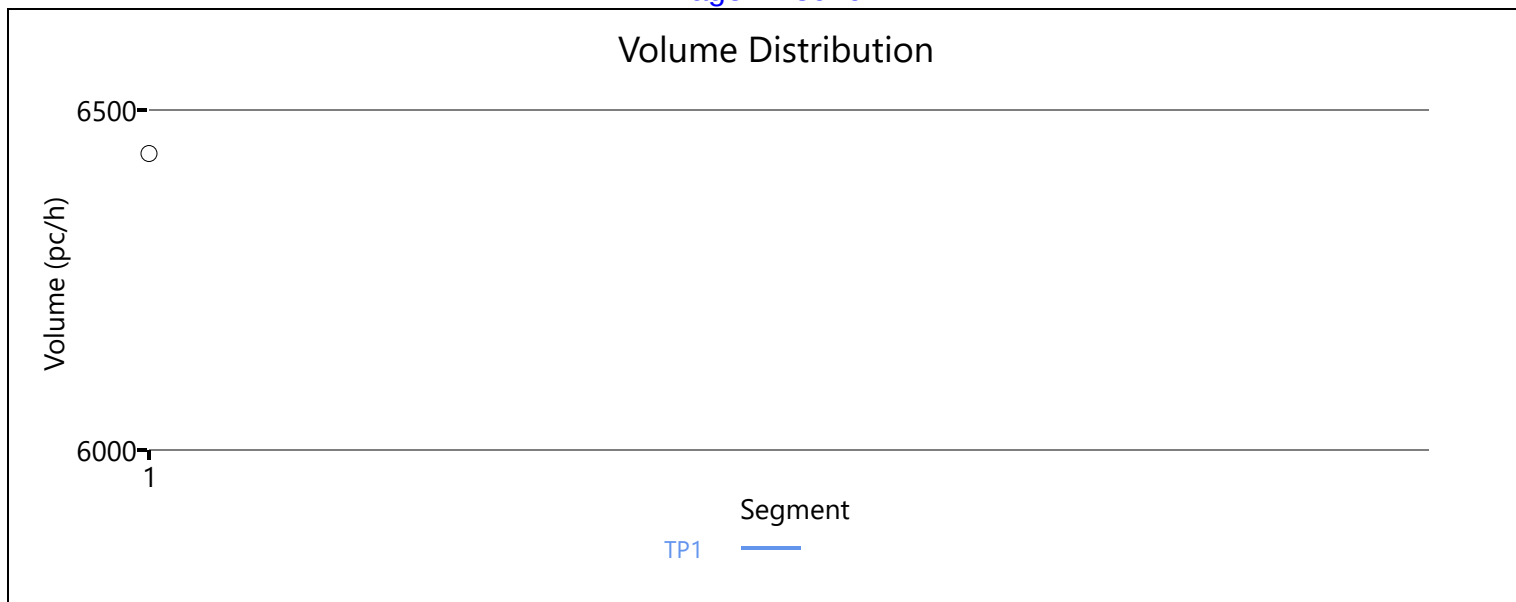
**Facility Analysis Results**

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	38.5	35.3	1.00	E

**Facility Overall Results**

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	35.3
Average Travel Time, min	1.00	Density, pc/mi/ln	38.5

**Messages****Comments**



## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	MD
Project Description	RFK NB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.69		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.891	5559	8800	0.63	41.8	33.3	D

## Facility Analysis Results

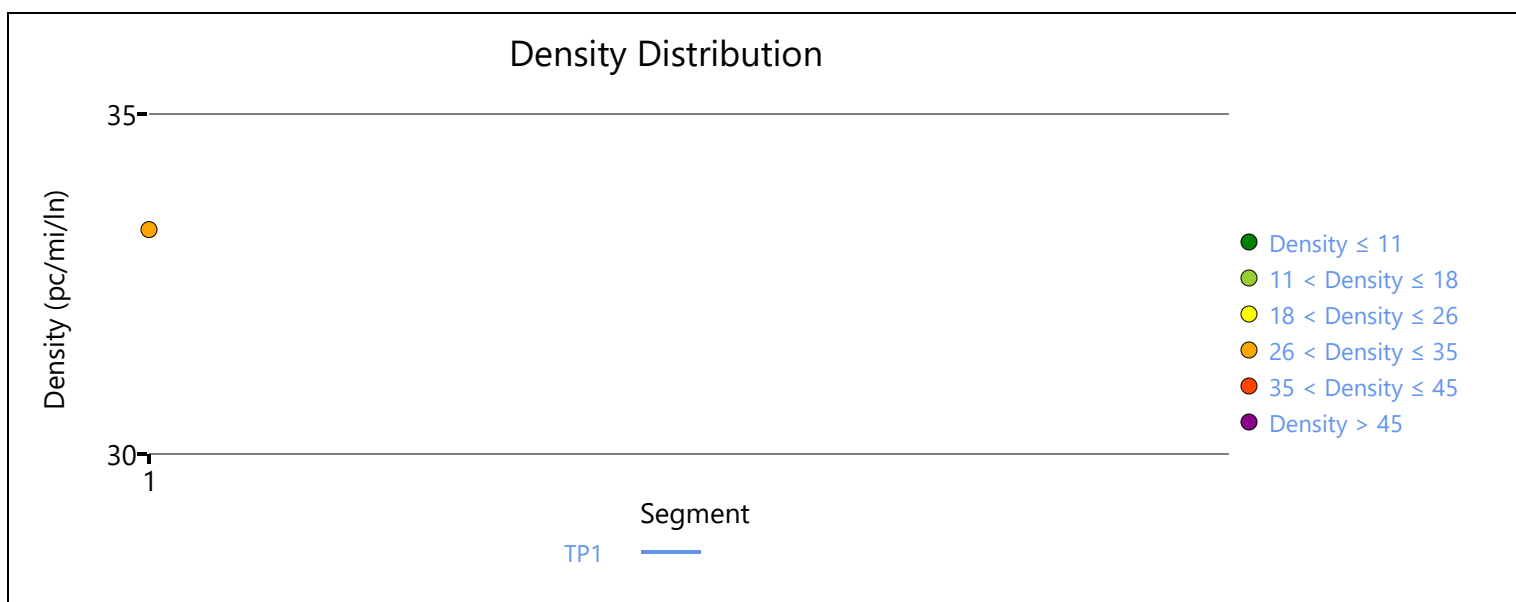
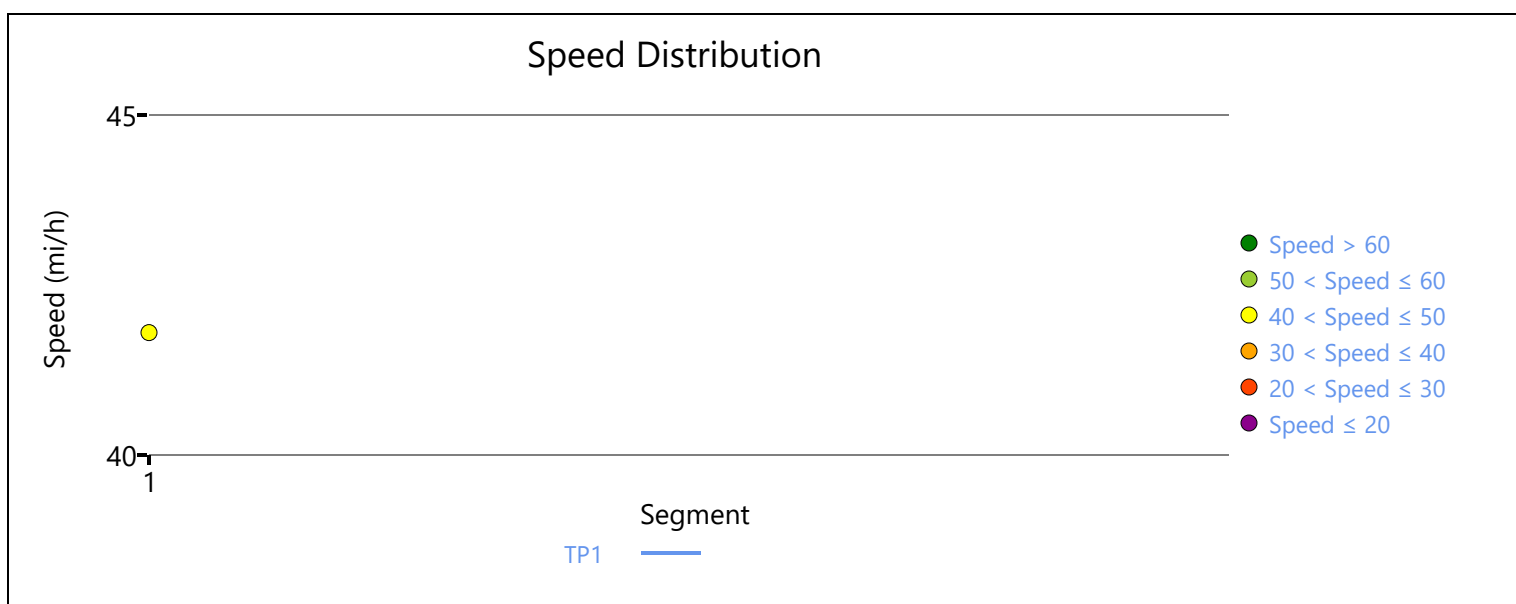
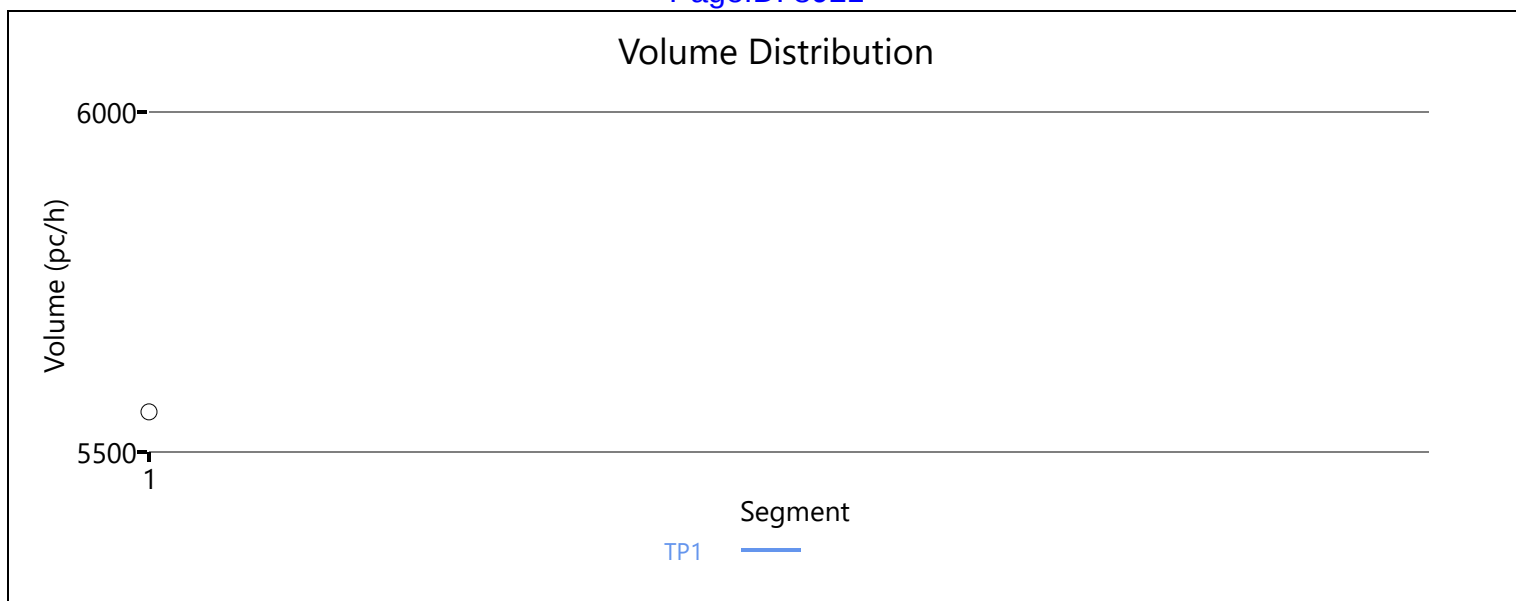
AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	33.3	29.7	1.00	D

## Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	29.7
Average Travel Time, min	1.00	Density, pc/mi/ln	33.3

## Messages

## Comments



## HCS7 Freeway Facilities Report

**Project Information**

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	MD
Project Description	RFK SB	Units	U.S. Customary

**Facility Global Input**

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.69		

**Facility Segment Data**

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

**Facility Segment Data****Segment 1: Basic**

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.888	4919	8800	0.56	41.8	29.4	D

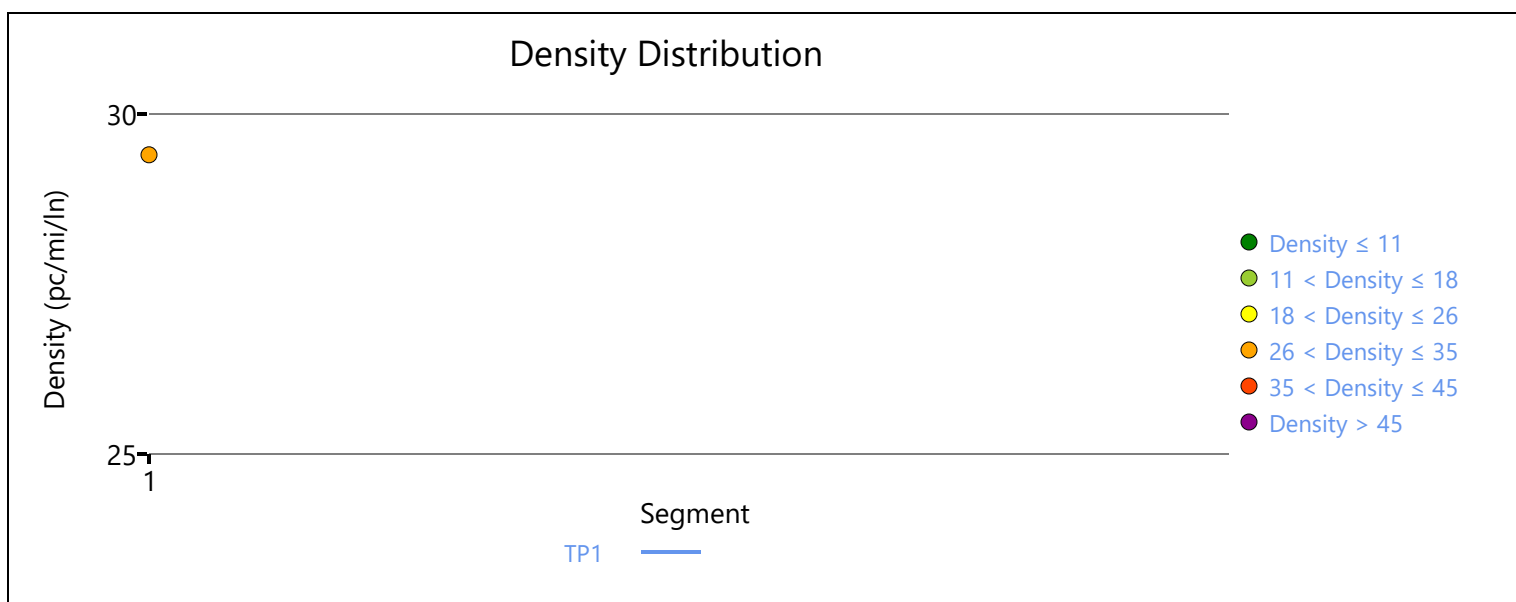
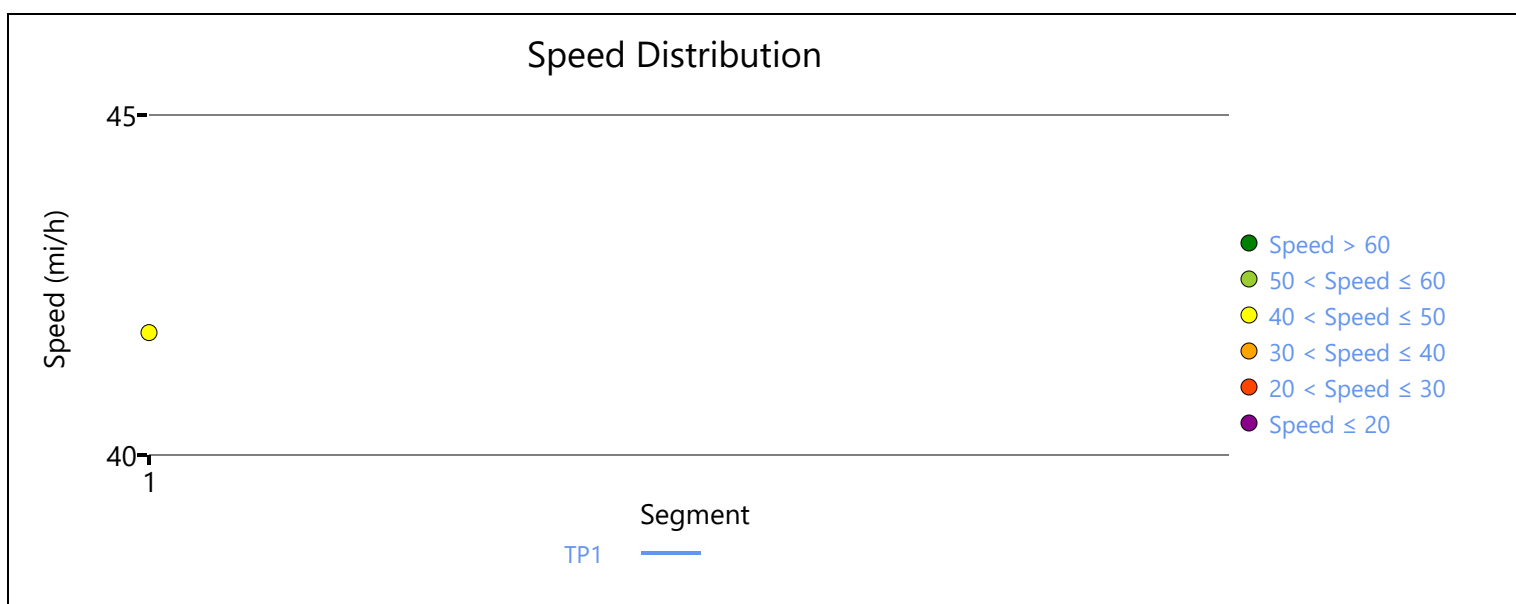
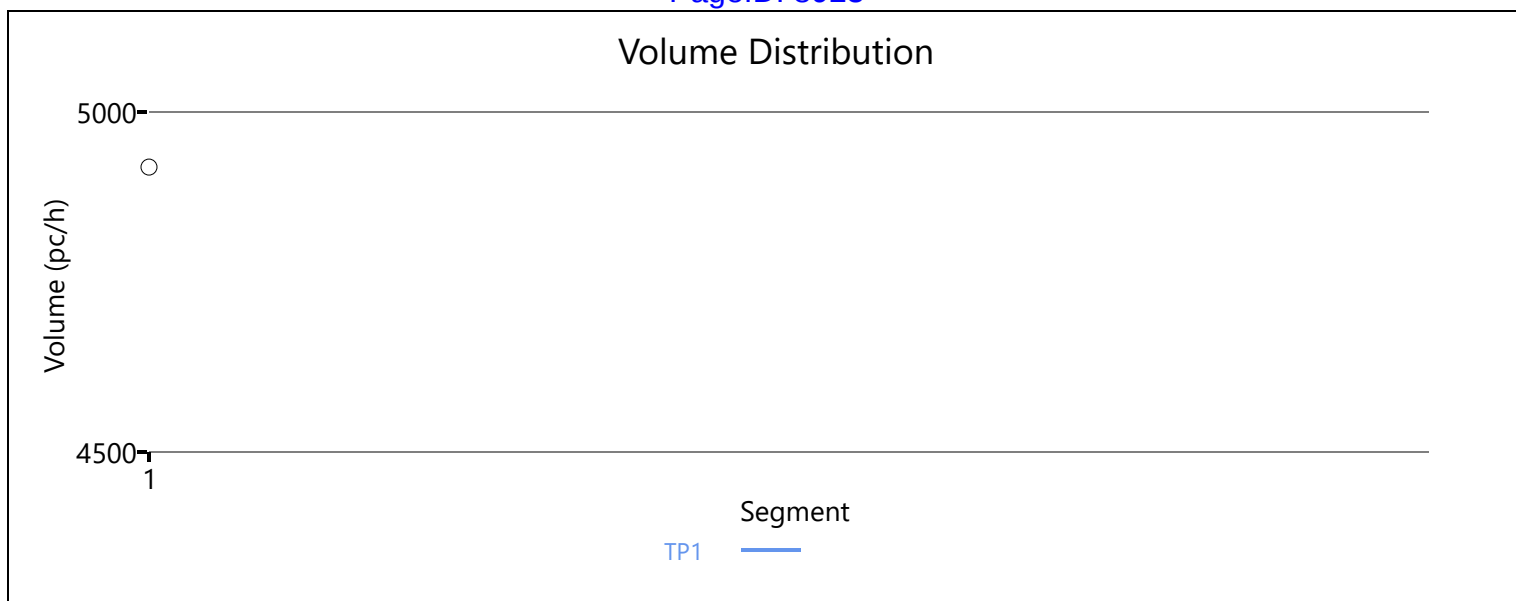
**Facility Analysis Results**

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	29.4	26.1	1.00	D

**Facility Overall Results**

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	26.1
Average Travel Time, min	1.00	Density, pc/mi/ln	29.4

**Messages****Comments**



## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	PM
Project Description	RFK NB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.69		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.952	5868	8800	0.67	41.8	35.1	E

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	35.1	33.4	1.00	E

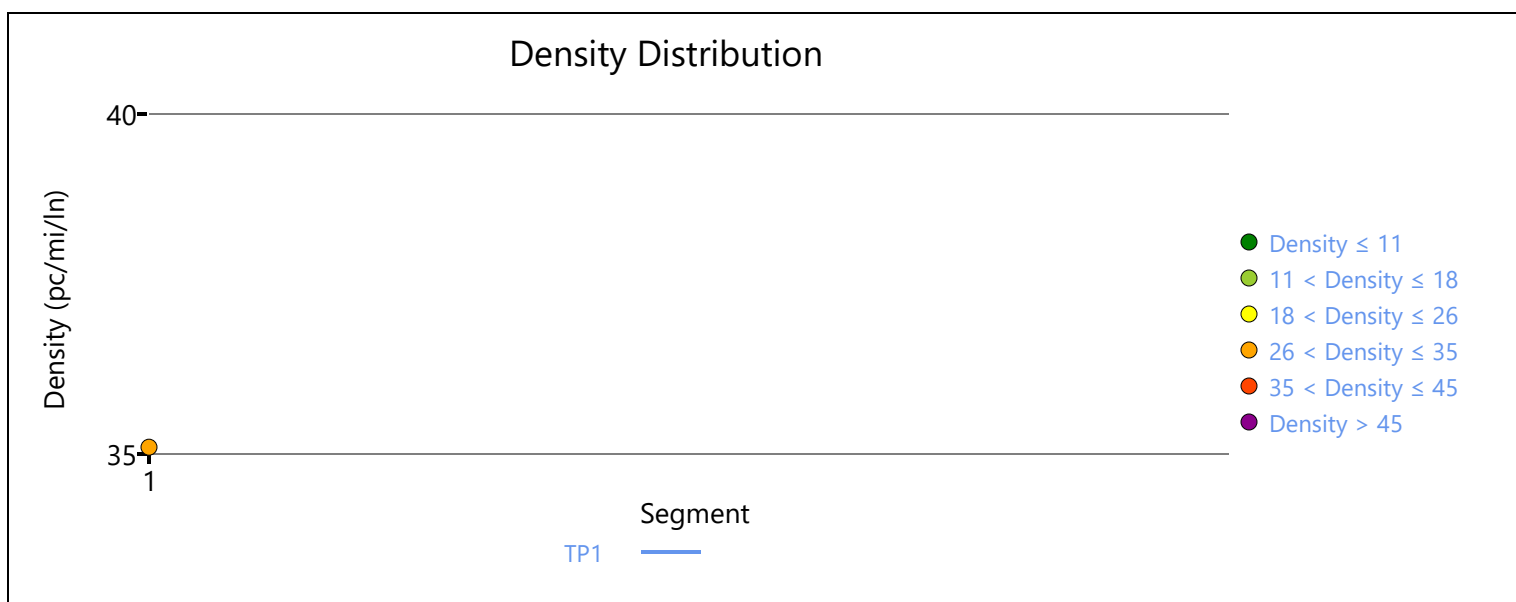
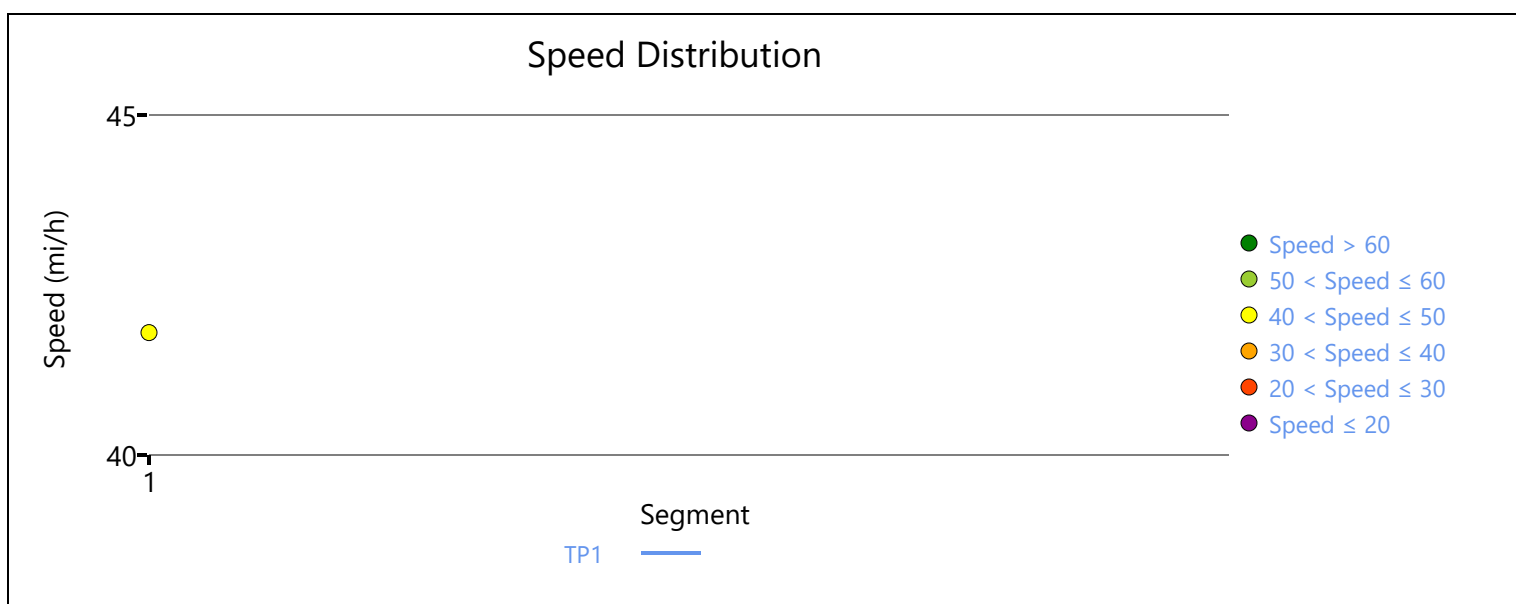
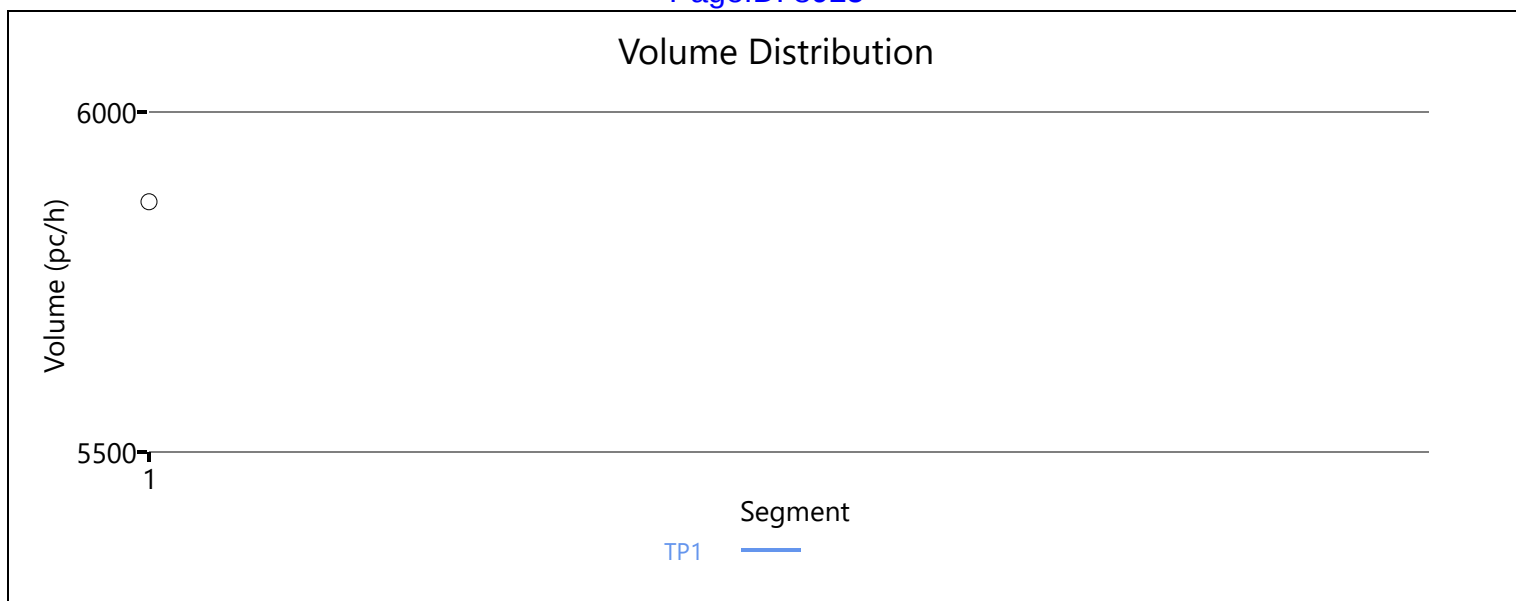
## Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	33.4
Average Travel Time, min	1.00	Density, pc/mi/ln	35.1

## Messages

## Comments





## HCS7 Freeway Facilities Report

**Project Information**

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	PM
Project Description	RFK SB	Units	U.S. Customary

**Facility Global Input**

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.69		

**Facility Segment Data**

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

**Facility Segment Data****Segment 1: Basic**

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.951	5564	8800	0.63	41.8	33.3	D

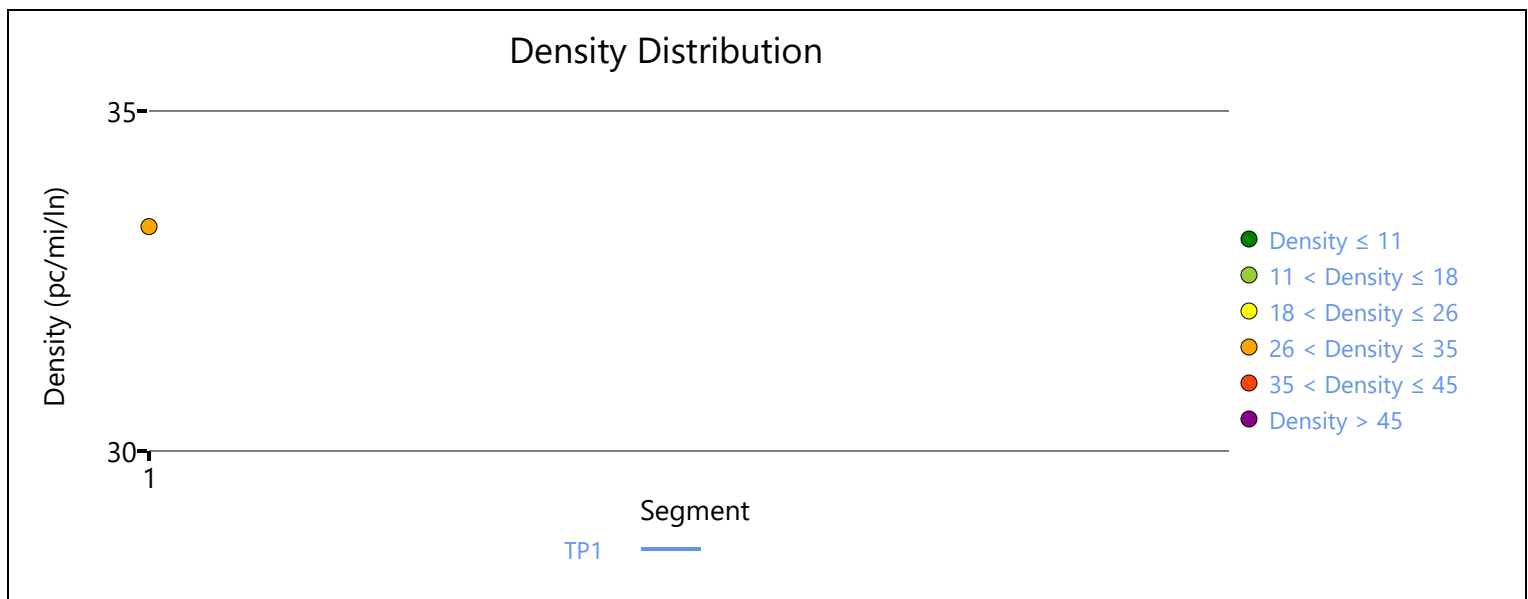
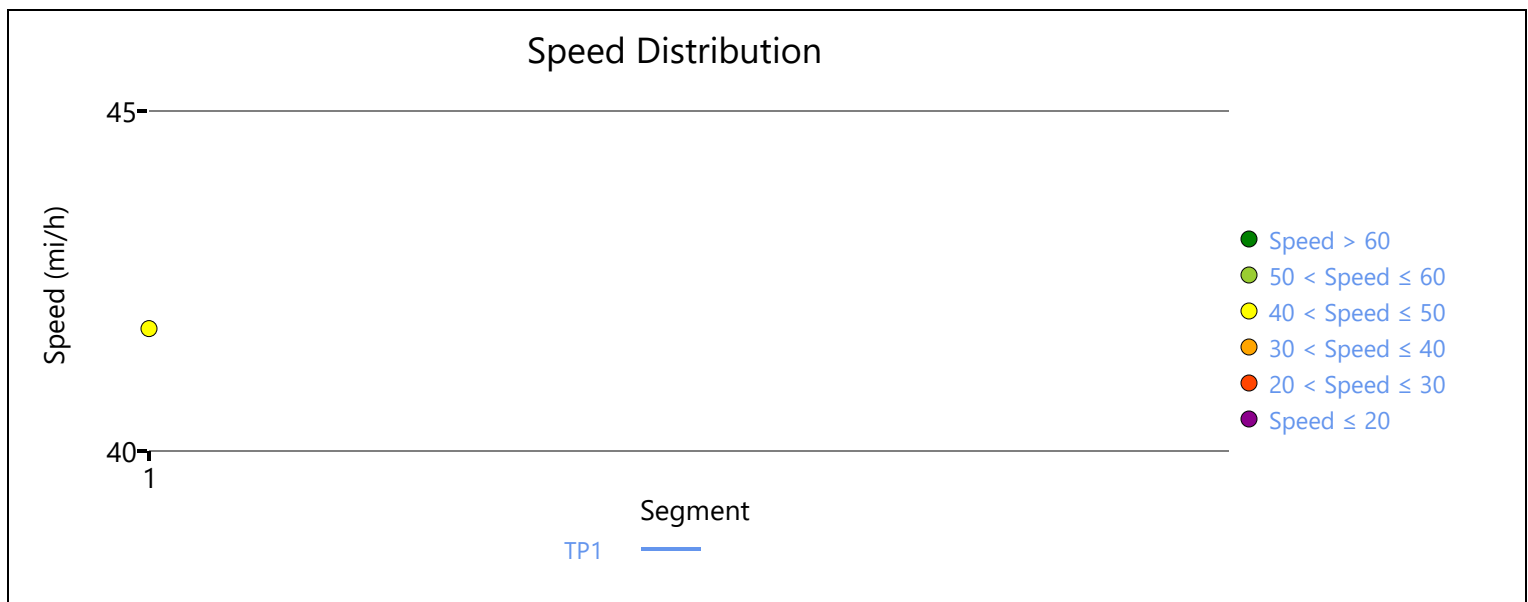
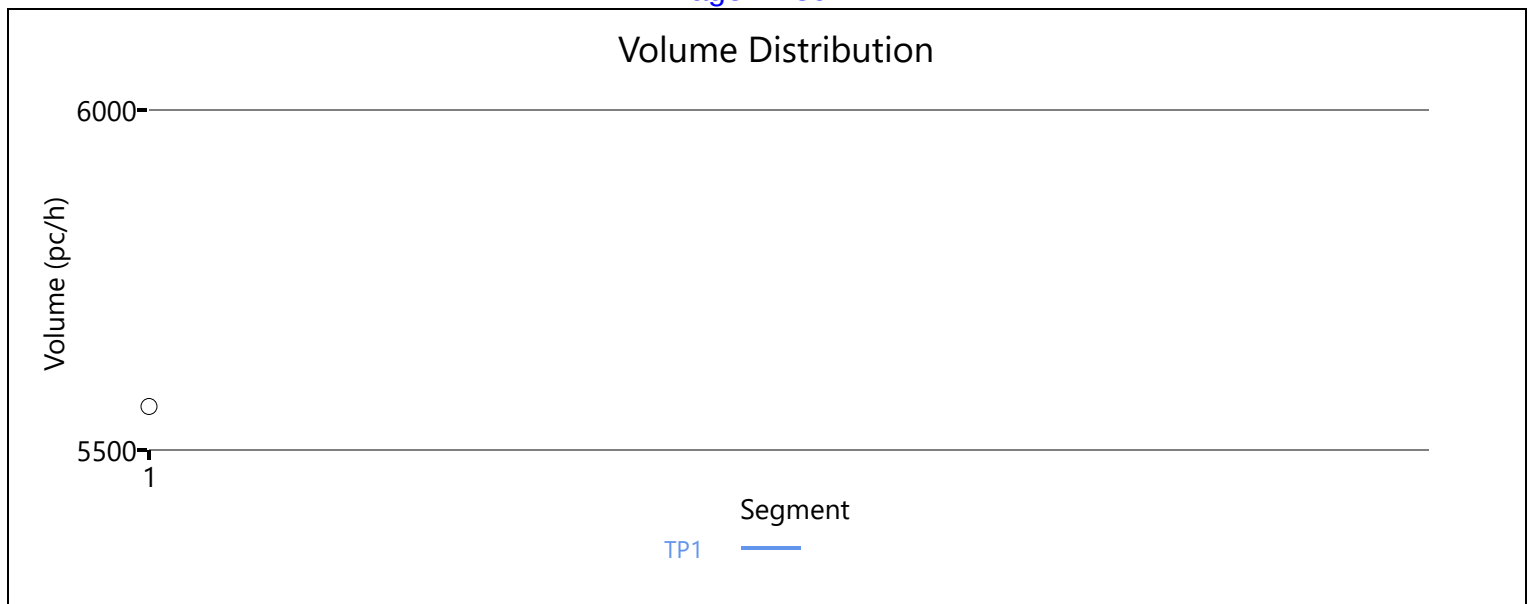
**Facility Analysis Results**

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	33.3	31.7	1.00	D

**Facility Overall Results**

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	31.7
Average Travel Time, min	1.00	Density, pc/mi/ln	33.3

**Messages****Comments**



## HCS7 Freeway Facilities Report

**Project Information**

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	LN
Project Description	RFK NB	Units	U.S. Customary

**Facility Global Input**

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.69		

**Facility Segment Data**

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

**Facility Segment Data****Segment 1: Basic**

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.870	1143	8800	0.13	41.8	6.8	A

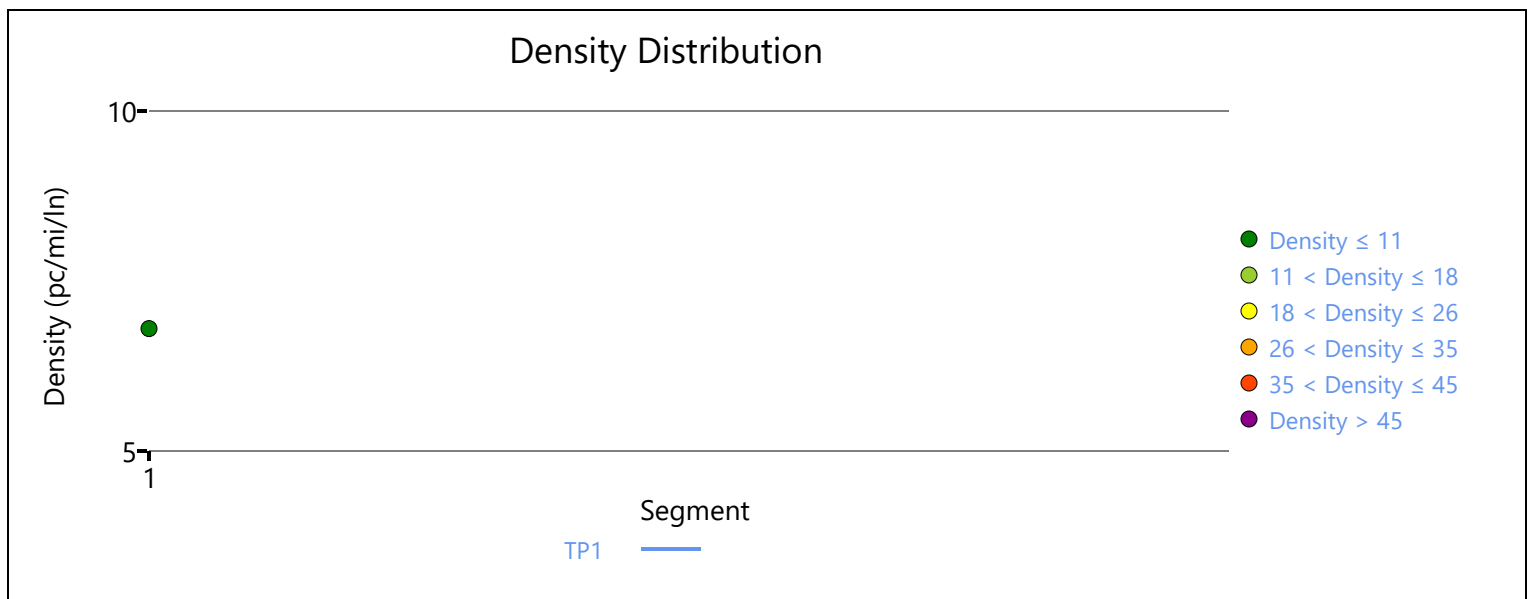
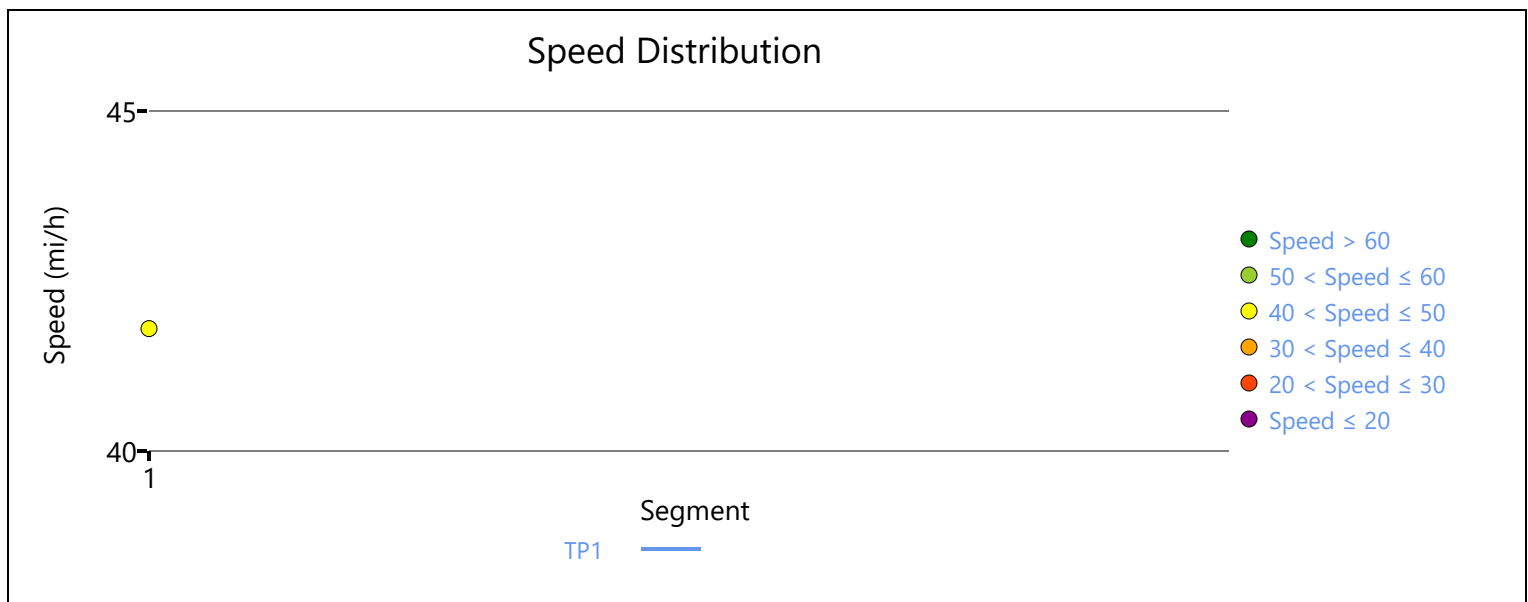
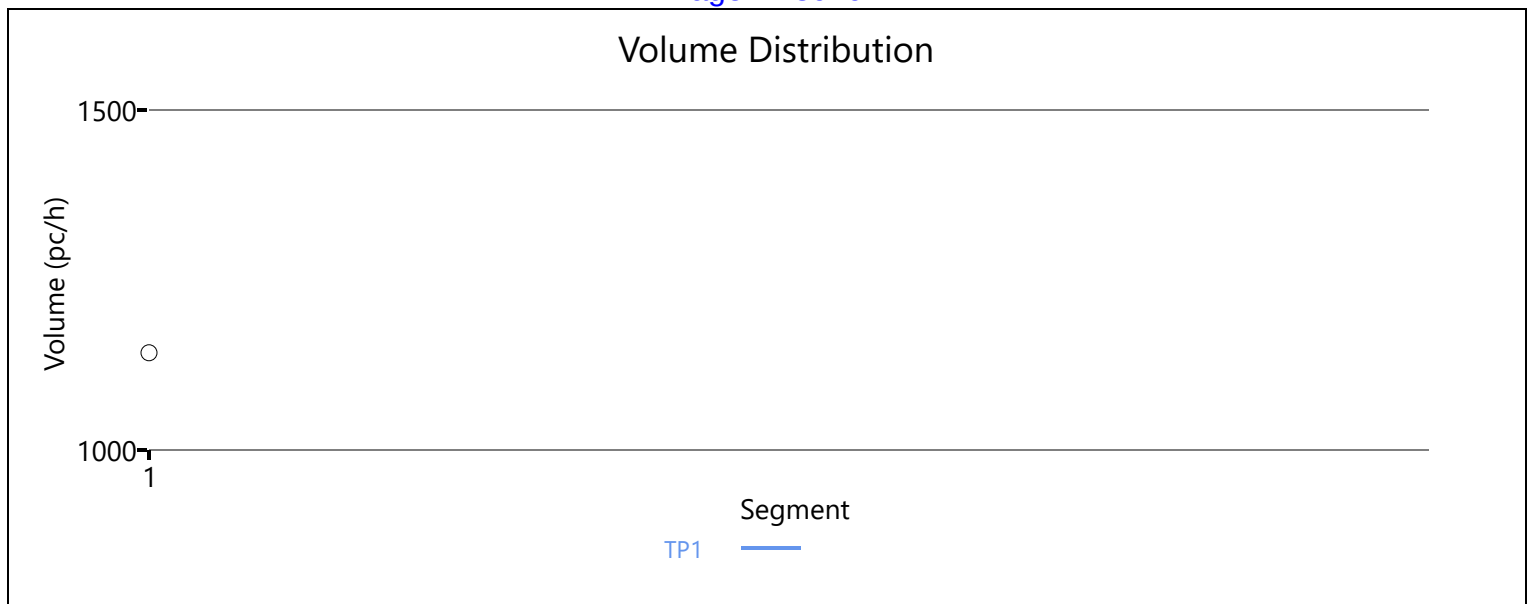
**Facility Analysis Results**

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	6.8	5.9	1.00	A

**Facility Overall Results**

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	5.9
Average Travel Time, min	1.00	Density, pc/mi/ln	6.8

**Messages****Comments**



## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	LN
Project Description	RFK SB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	1
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	0.69		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		3634	4

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.924	1675	8800	0.19	41.8	10.0	A

## Facility Analysis Results

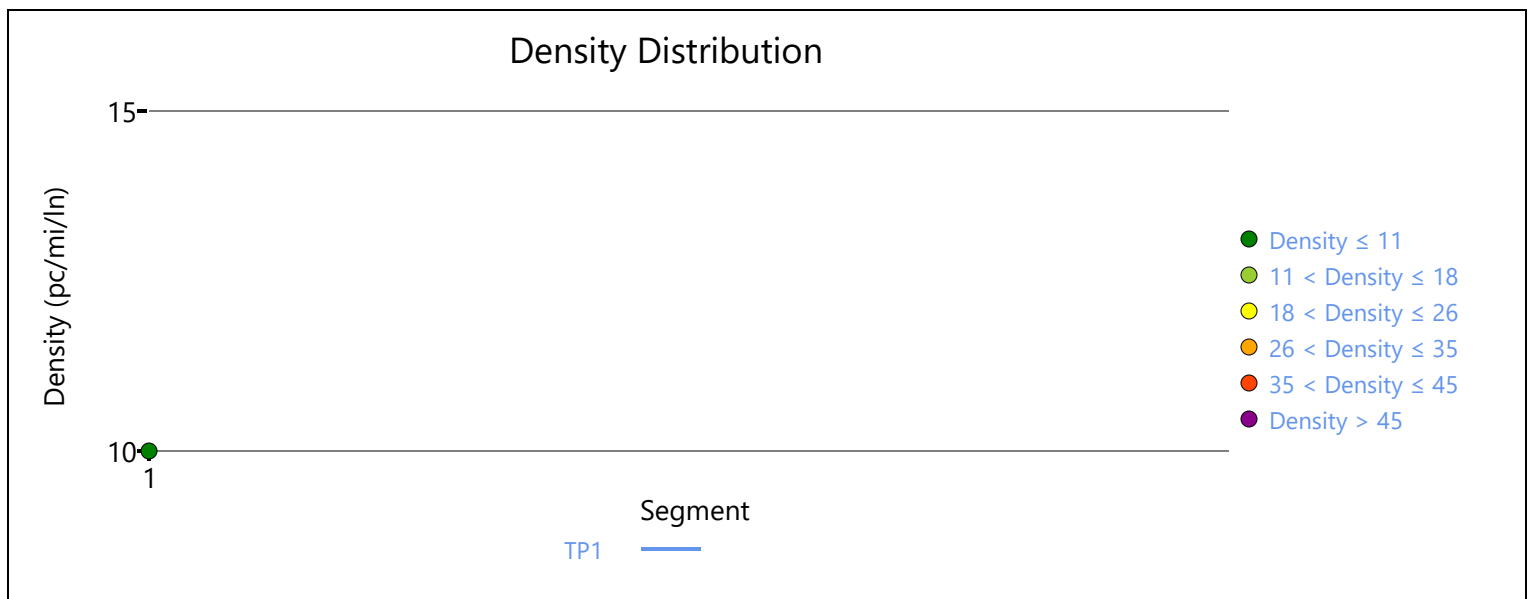
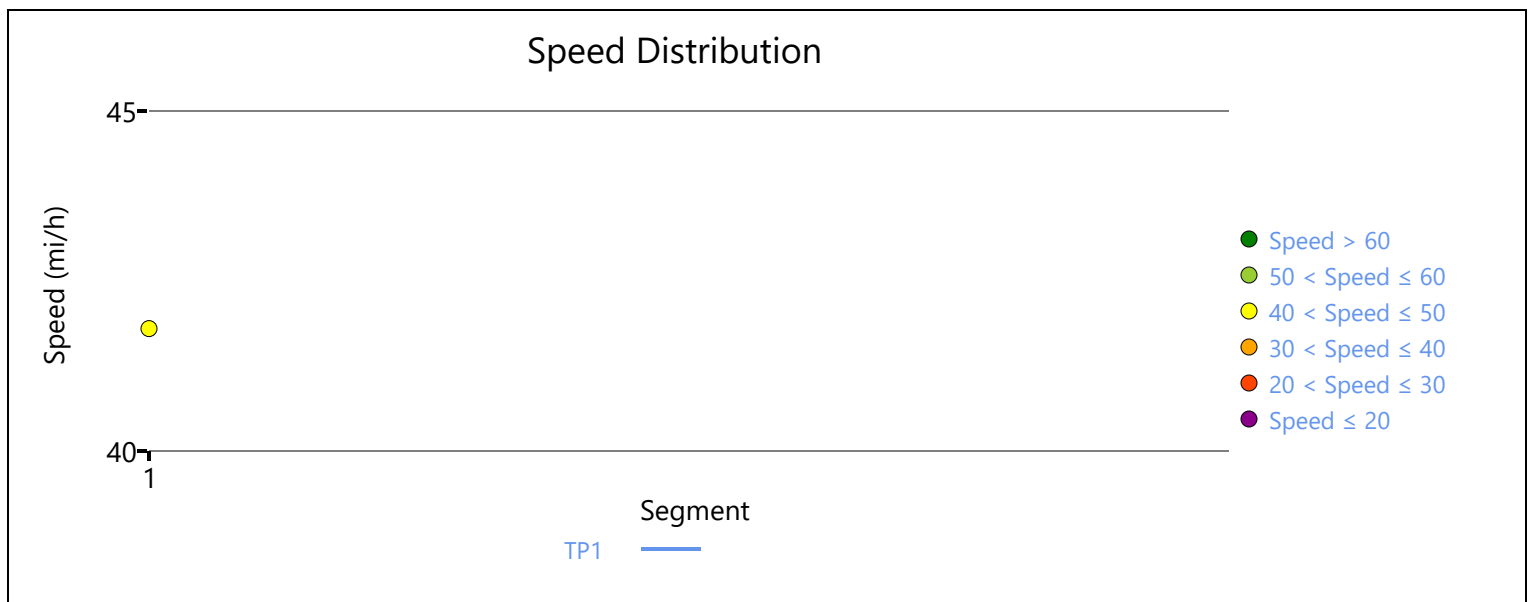
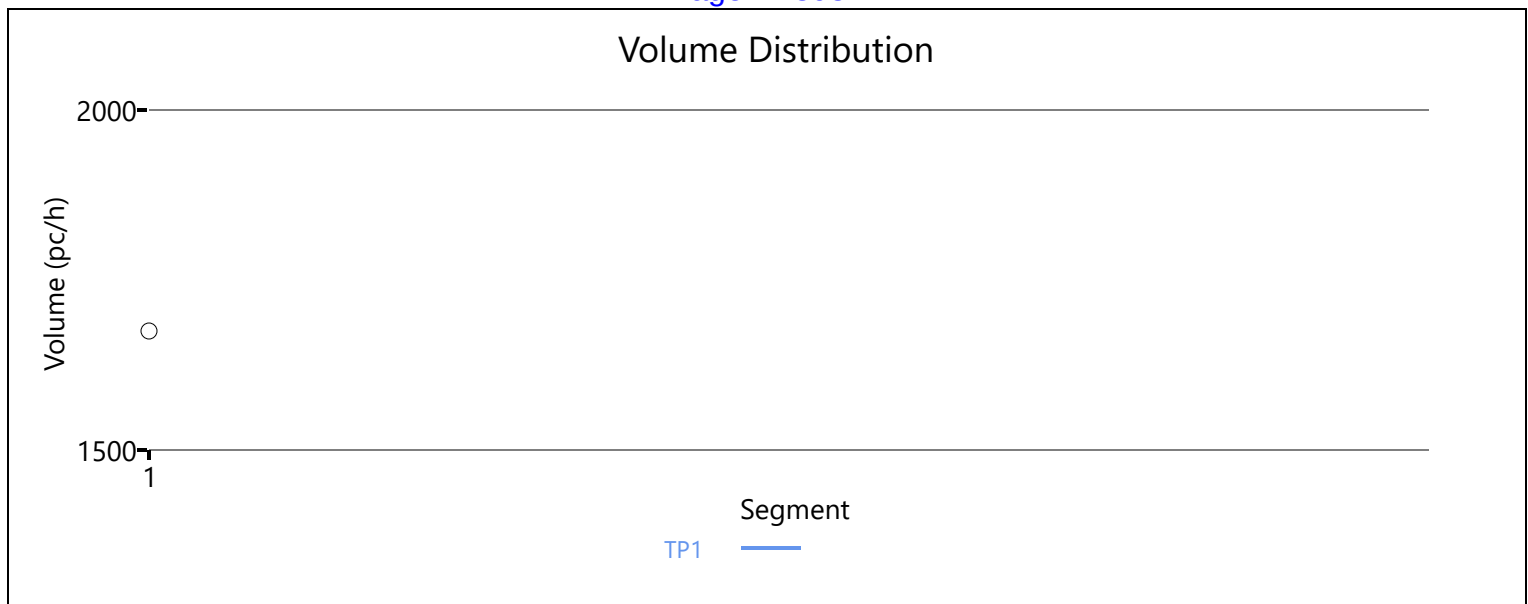
AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.8	10.0	9.2	1.00	A

## Facility Overall Results

Space Mean Speed, mi/h	41.8	Density, veh/mi/ln	9.2
Average Travel Time, min	1.00	Density, pc/mi/ln	10.0

## Messages

## Comments



## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	AM
Project Description	NJTP Eastern Spur NB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.789	275	6654	0.04	51.8	1.8	A

## Segment 2: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.789	0.855	1094	819	6750	4000	0.16	0.20	51.7	51.3	7.1	8.6	A

## Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.838	1094	6654	0.16	51.8	7.0	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.8	4.7	3.9	1.20	A

## Facility Overall Results

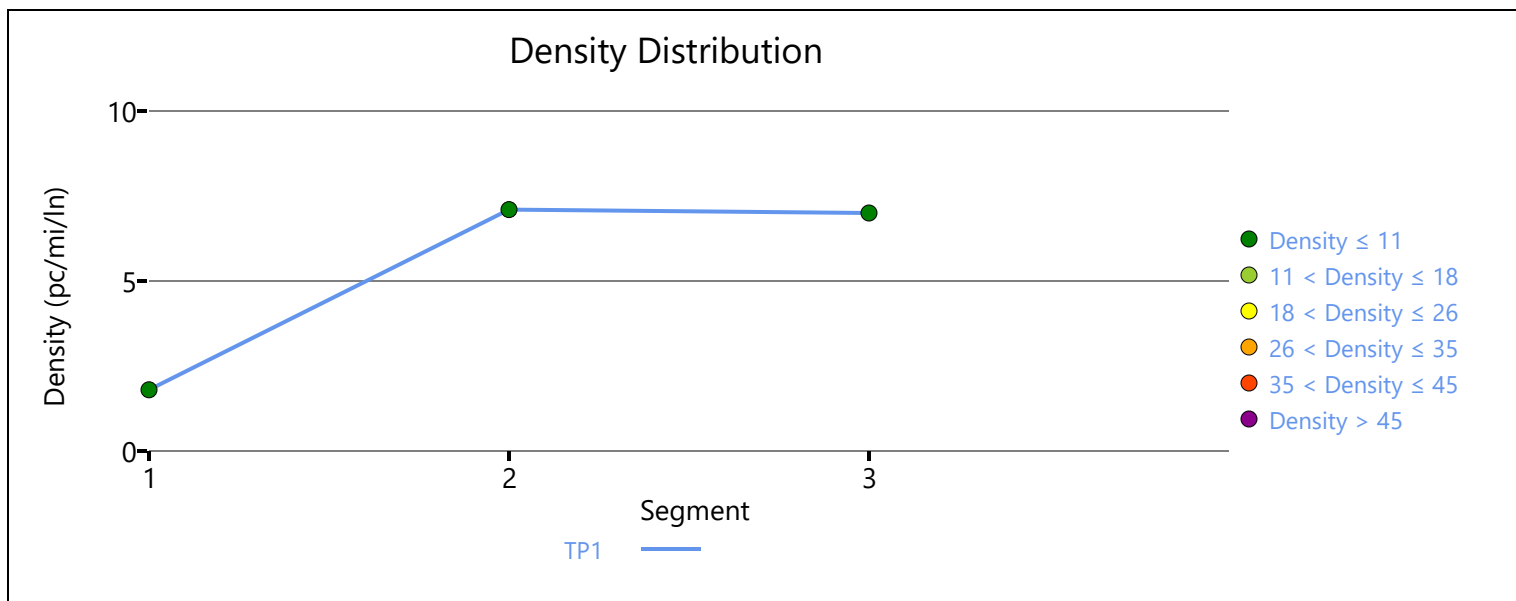
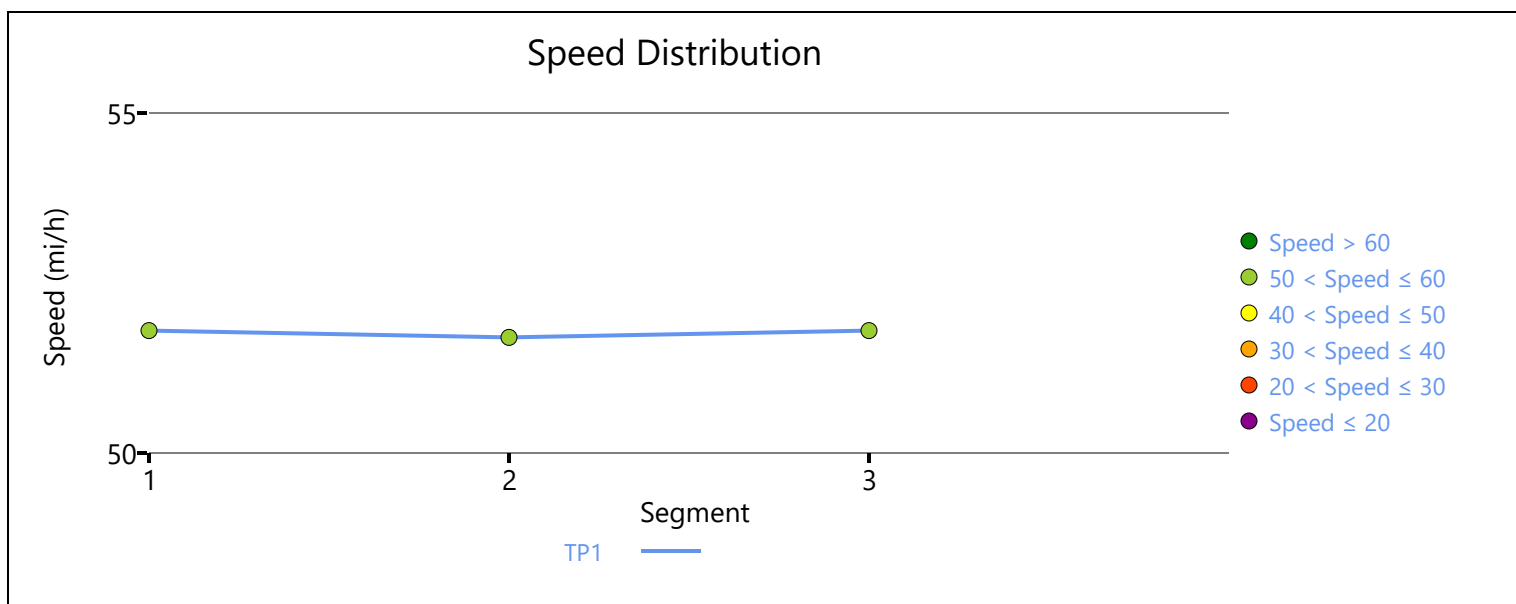
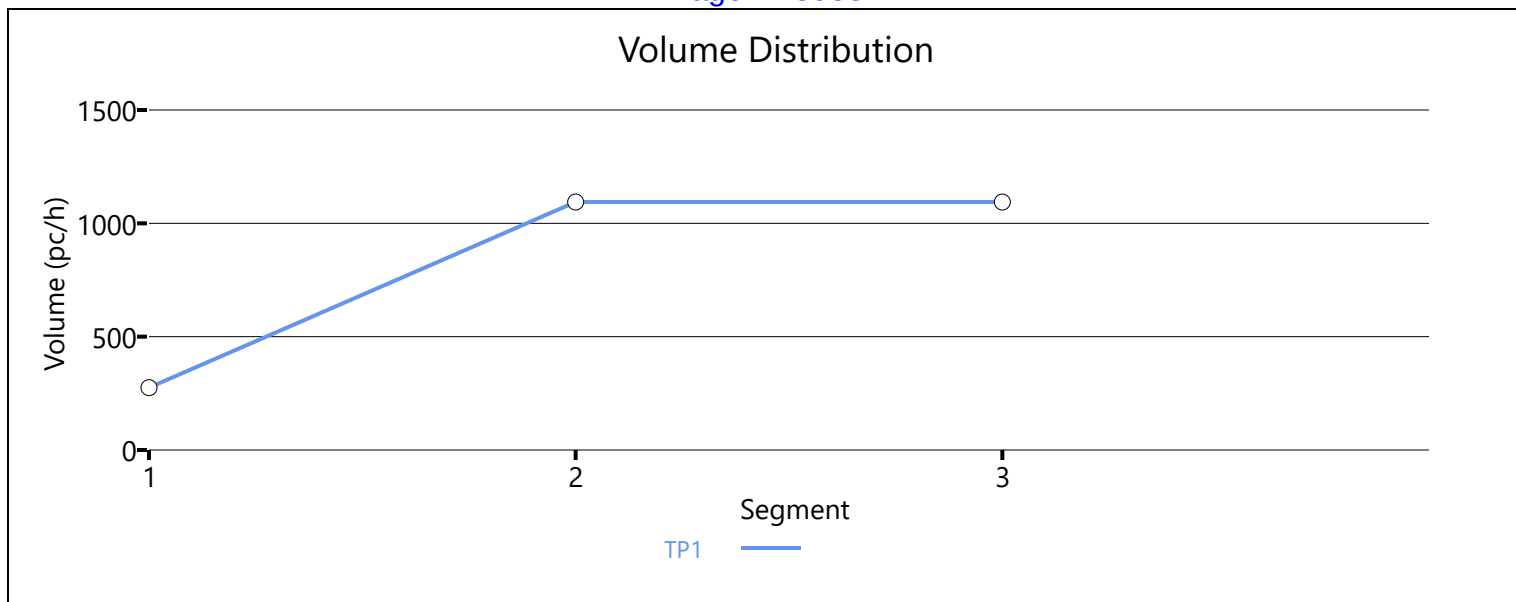
Space Mean Speed, mi/h	51.8	Density, veh/mi/ln	3.9
Average Travel Time, min	1.20	Density, pc/mi/ln	4.7

## Messages

## Comments

DRAFT, PRIVILEGED, AND CONFIDENTIAL





## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	AM
Project Description	NJTP Eastern Spur SB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.856	1434	6654	0.22	51.8	9.2	A

## Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.856	0.836	1434	836	6750	4200	0.21	0.20	54.9	55.0	8.7	8.7	A

## Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.880	601	6654	0.09	51.8	3.9	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	52.8	7.1	6.1	1.50	A

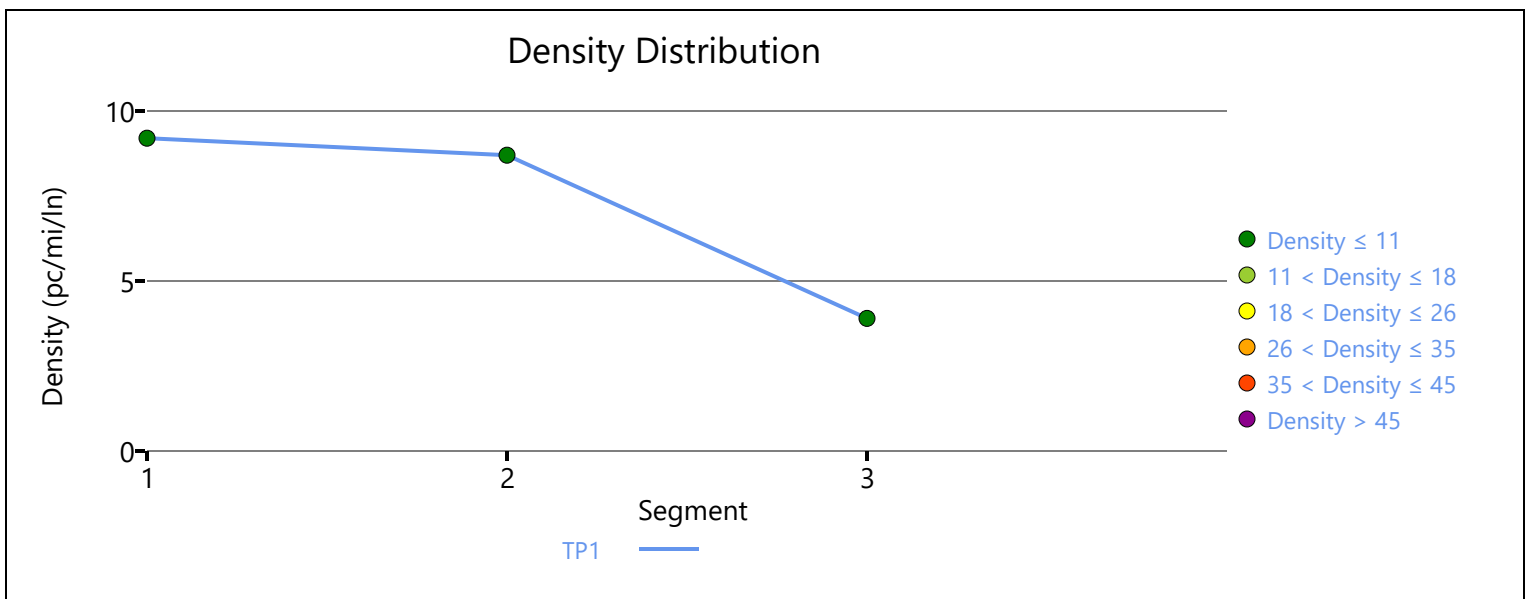
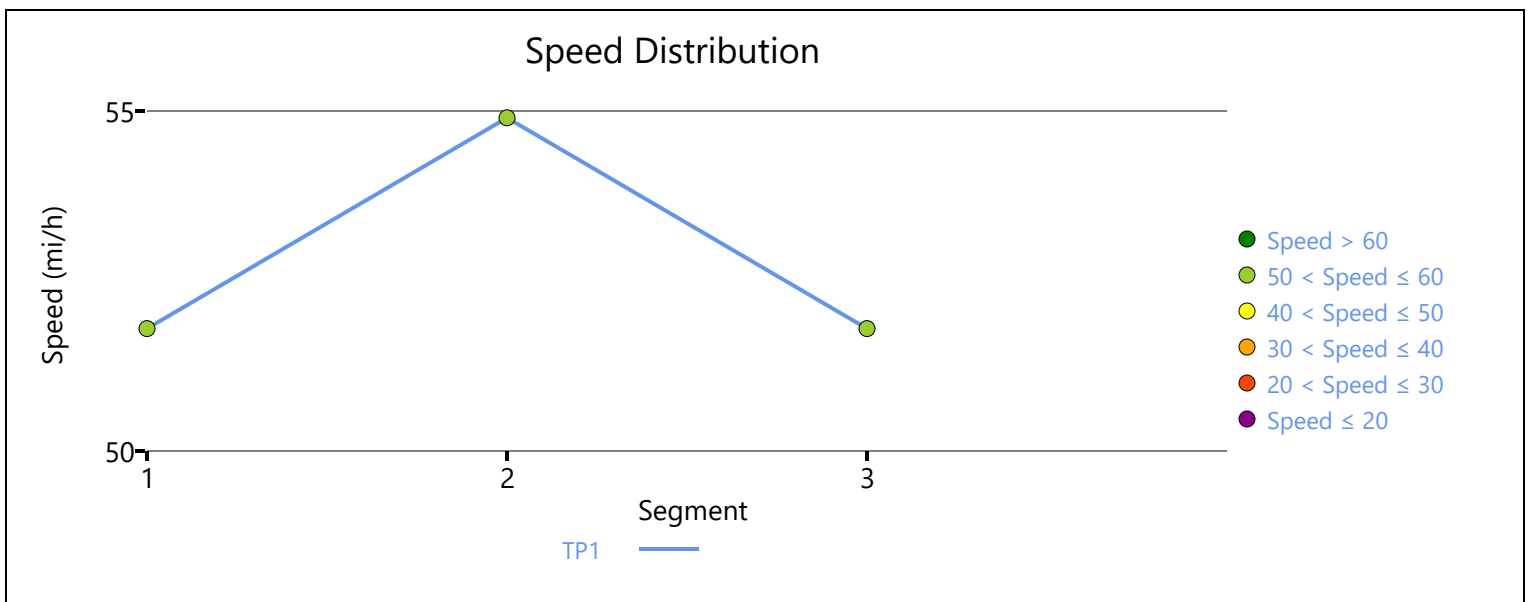
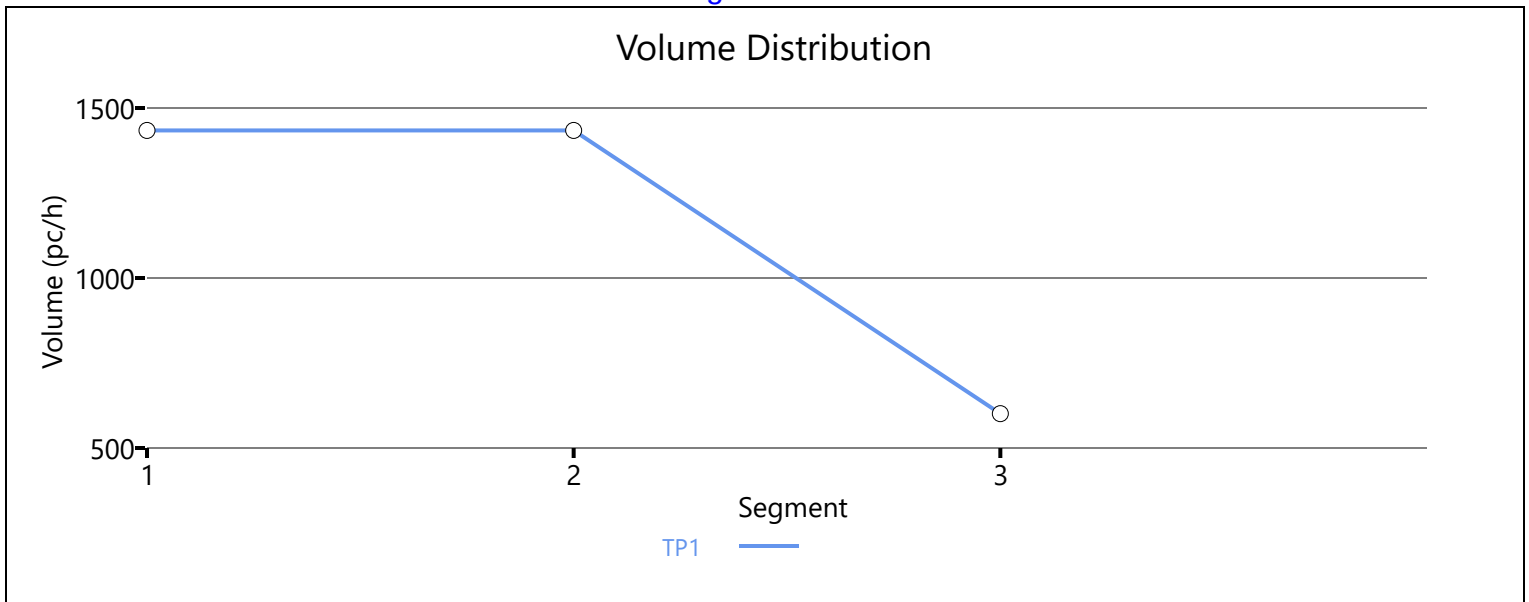
## Facility Overall Results

Space Mean Speed, mi/h	52.8	Density, veh/mi/ln	6.1
Average Travel Time, min	1.50	Density, pc/mi/ln	7.1

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
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## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	MD
Project Description	NJTP Eastern Spur NB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.795	352	6654	0.05	51.8	2.3	A

## Segment 2: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.795	0.832	1112	760	6750	4000	0.16	0.19	51.8	51.3	7.2	8.5	A

## Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.821	1110	6654	0.17	51.8	7.1	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.8	5.0	4.0	1.20	A

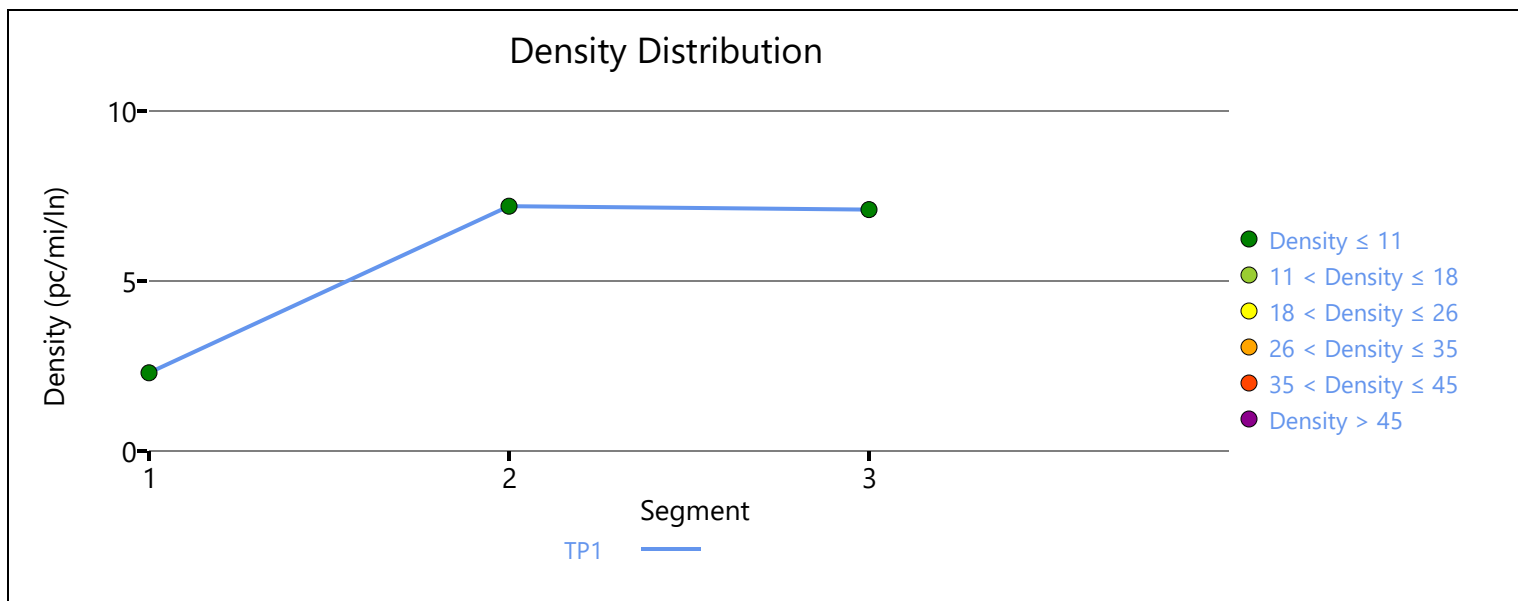
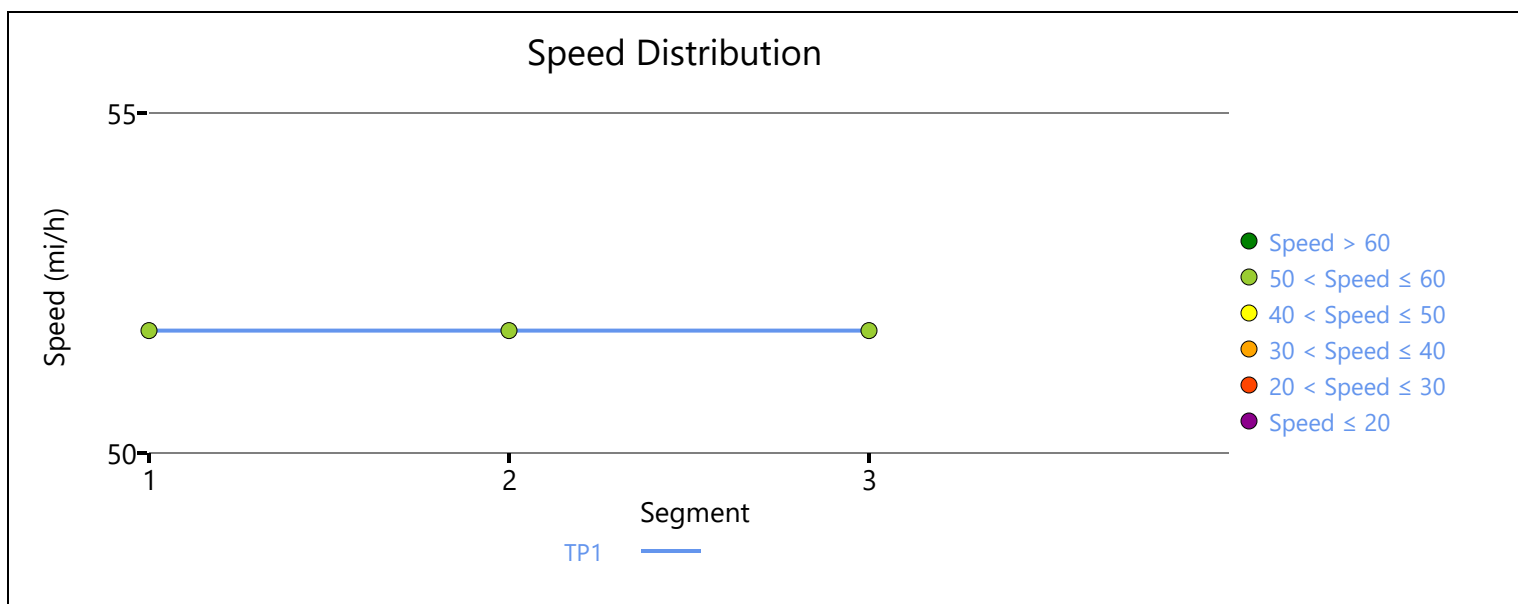
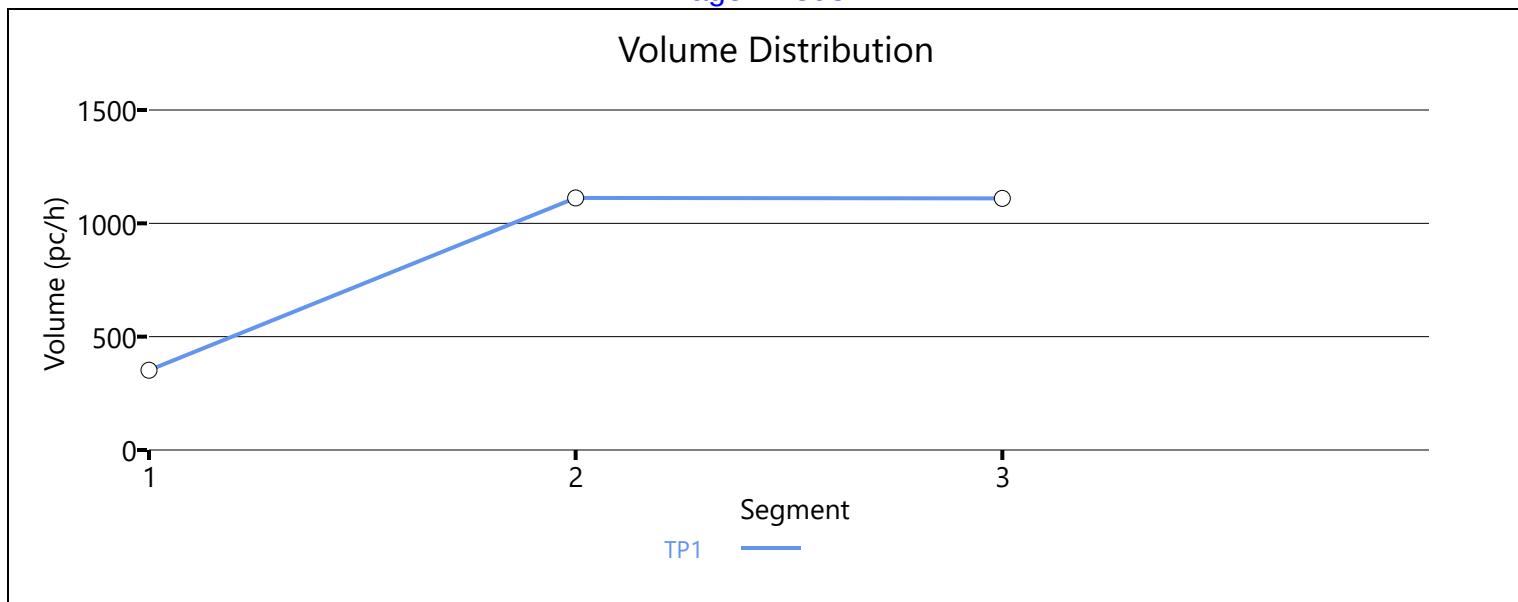
## Facility Overall Results

Space Mean Speed, mi/h	51.8	Density, veh/mi/ln	4.0
Average Travel Time, min	1.20	Density, pc/mi/ln	5.0

## Messages

## Comments

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## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	MD
Project Description	NJTP Eastern Spur SB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.831	1020	6654	0.15	51.8	6.6	A

## Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.831	0.806	1020	822	6750	4200	0.15	0.20	54.9	55.0	6.2	6.2	A

## Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.921	201	6654	0.03	51.8	1.3	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	52.9	4.6	3.8	1.50	A

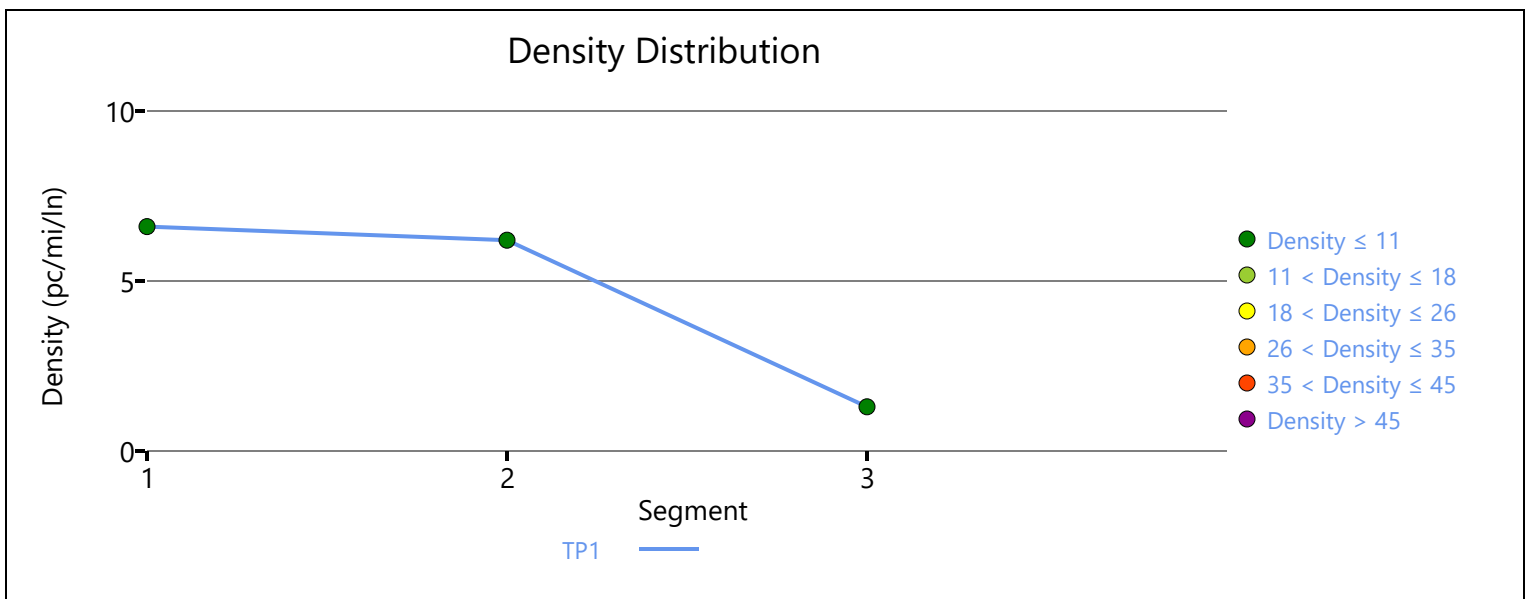
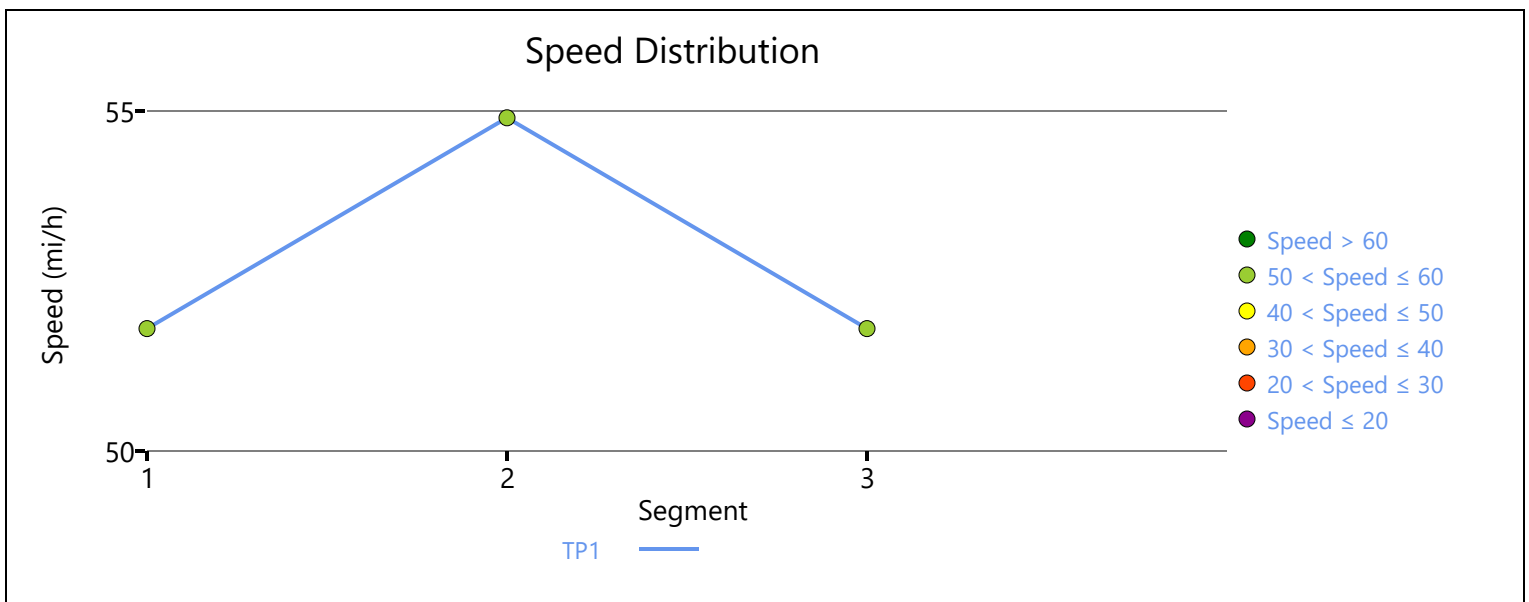
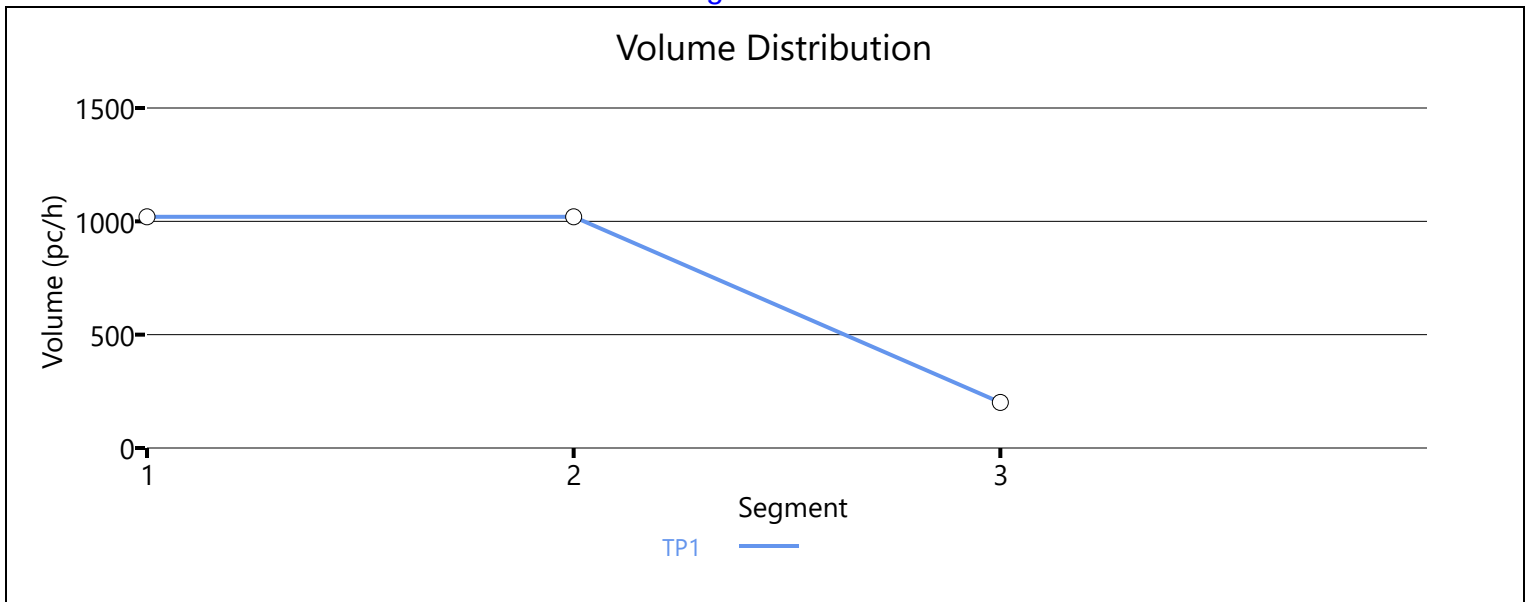
## Facility Overall Results

Space Mean Speed, mi/h	52.9	Density, veh/mi/ln	3.8
Average Travel Time, min	1.50	Density, pc/mi/ln	4.6

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
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## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	PM
Project Description	NJTP Eastern Spur NB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.917	578	6654	0.09	51.8	3.7	A

## Segment 2: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.917	0.933	1549	971	6750	4000	0.23	0.24	51.8	51.2	10.0	11.1	B

## Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.928	1548	6654	0.23	51.8	10.0	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.8	7.2	6.7	1.20	A

## Facility Overall Results

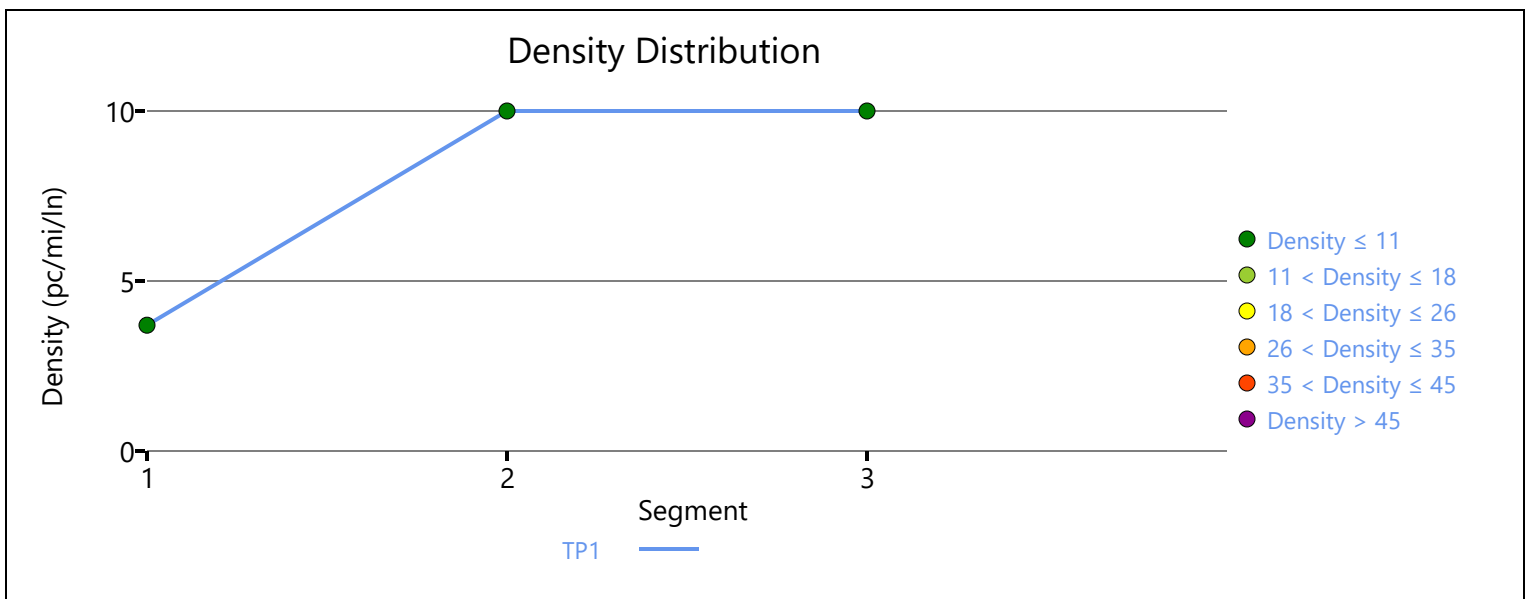
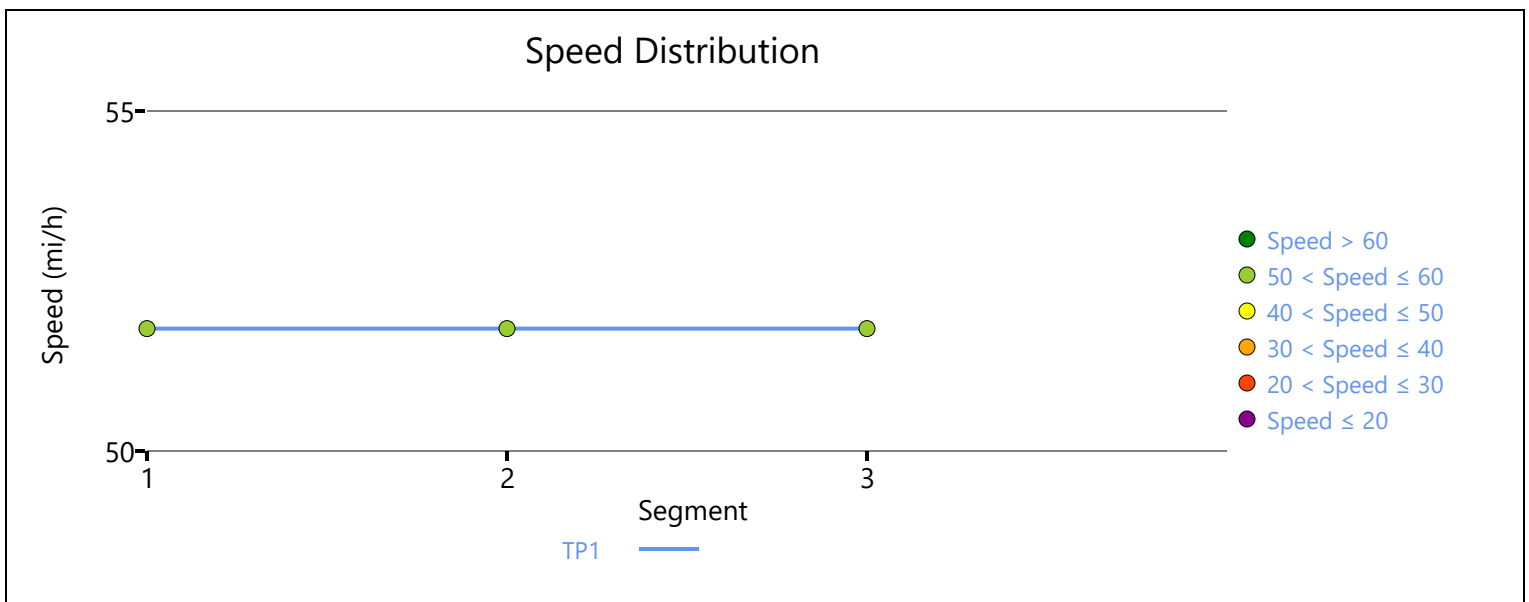
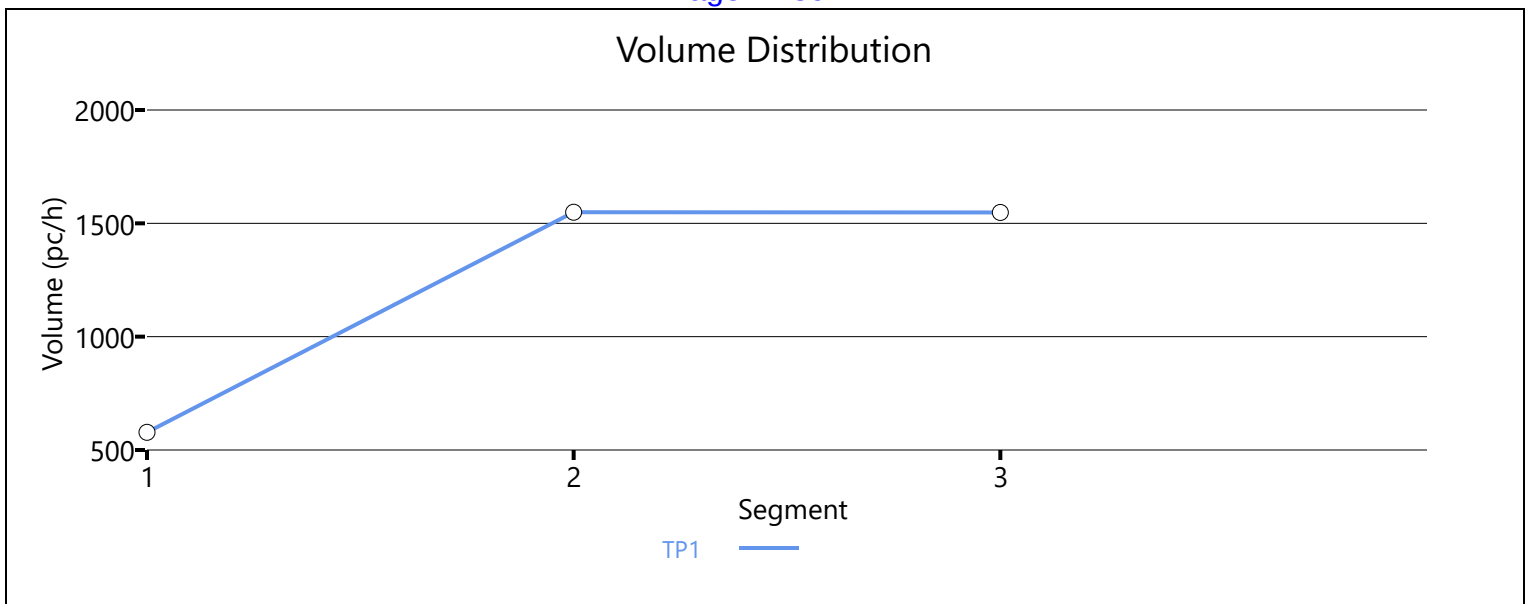
Space Mean Speed, mi/h	51.8	Density, veh/mi/ln	6.7
Average Travel Time, min	1.20	Density, pc/mi/ln	7.2

## Messages

## Comments

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## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	PM
Project Description	NJTP Eastern Spur SB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.919	957	6654	0.14	51.8	6.2	A

## Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.919	0.926	957	903	6750	4200	0.14	0.22	54.9	55.0	5.8	5.8	A

## Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.808	54	6654	0.01	51.8	0.3	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	53.0	3.9	3.6	1.50	A

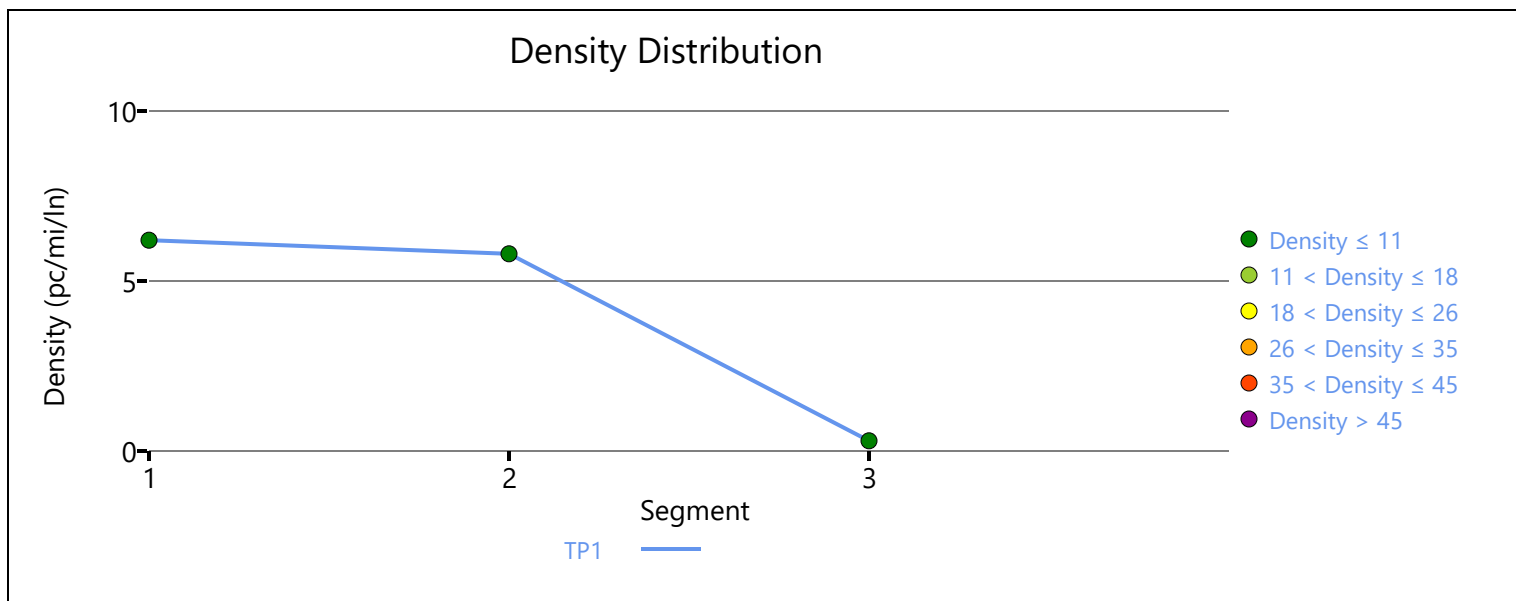
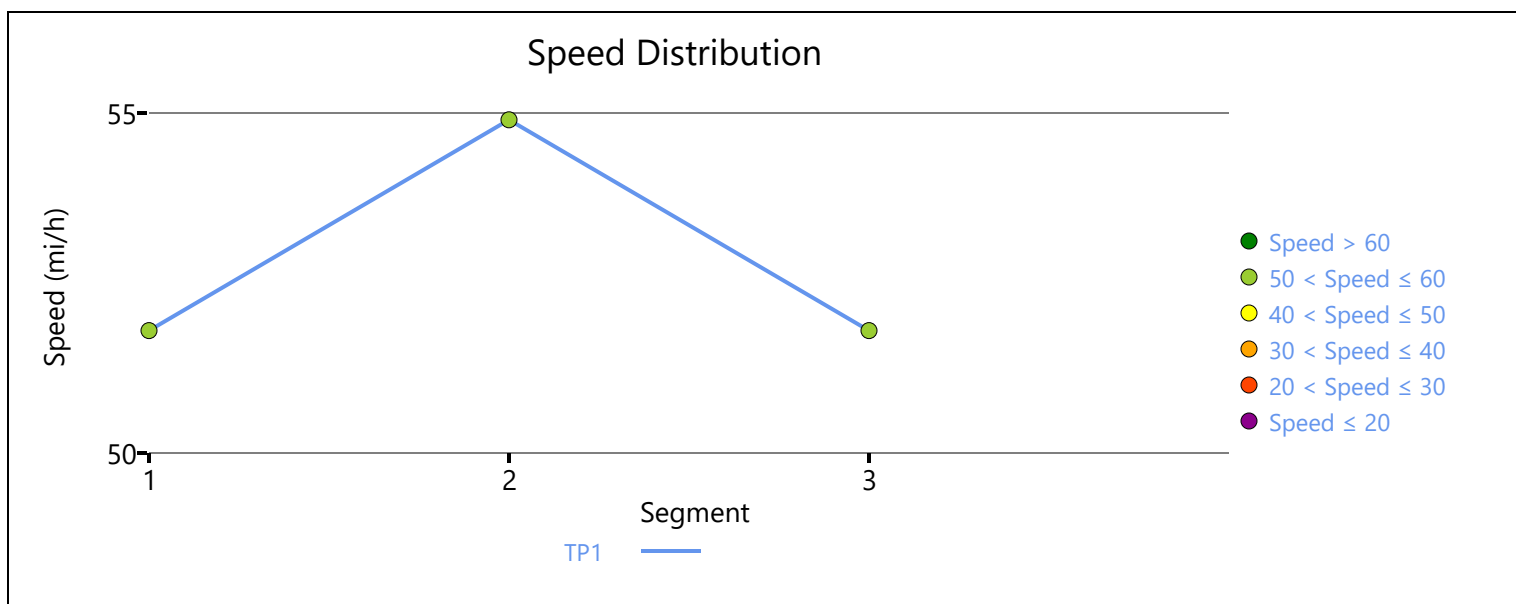
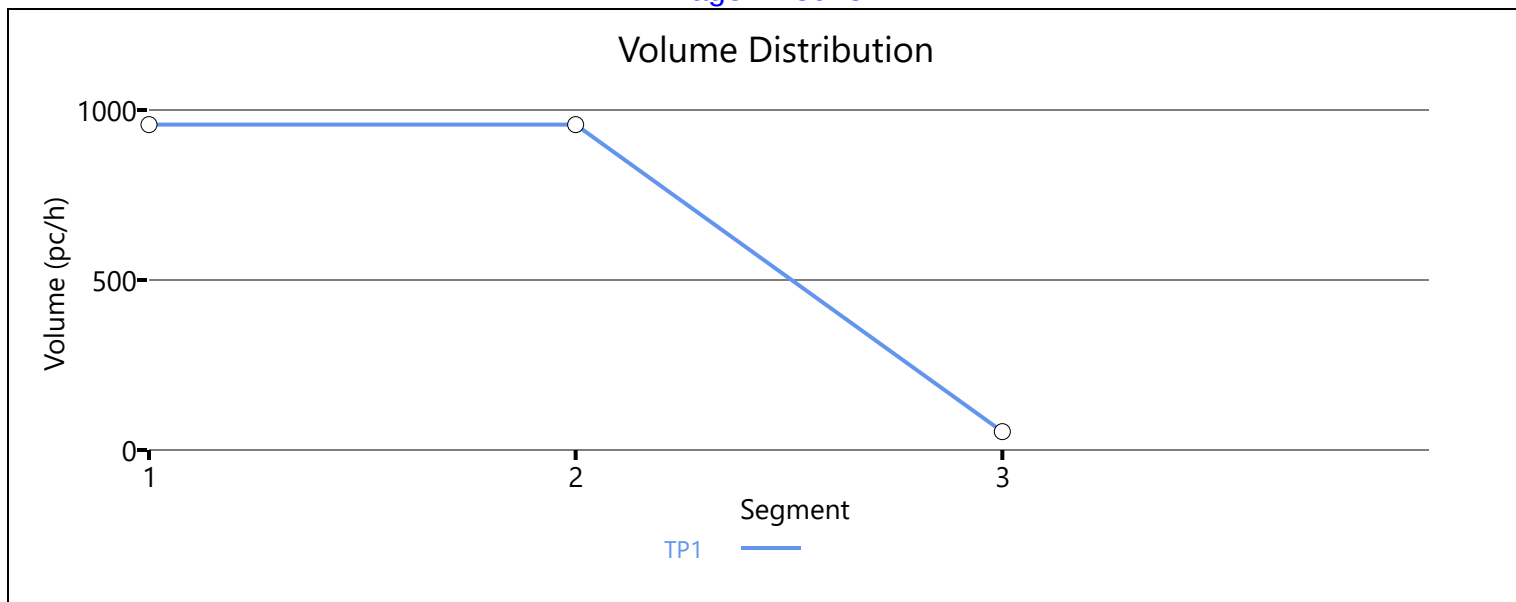
## Facility Overall Results

Space Mean Speed, mi/h	53.0	Density, veh/mi/ln	3.6
Average Travel Time, min	1.50	Density, pc/mi/ln	3.9

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
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## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	LN
Project Description	NJTP Eastern Spur NB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.07		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Merge	Merge	-	663	3
3	Basic	Basic		2500	3

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.733	20	6654	0.00	51.8	0.1	A

## Segment 2: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.733	0.904	431	411	6750	4000	0.06	0.10	51.4	51.3	2.8	4.5	A

## Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.896	431	6654	0.06	51.8	2.8	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	51.7	1.6	1.4	1.20	A

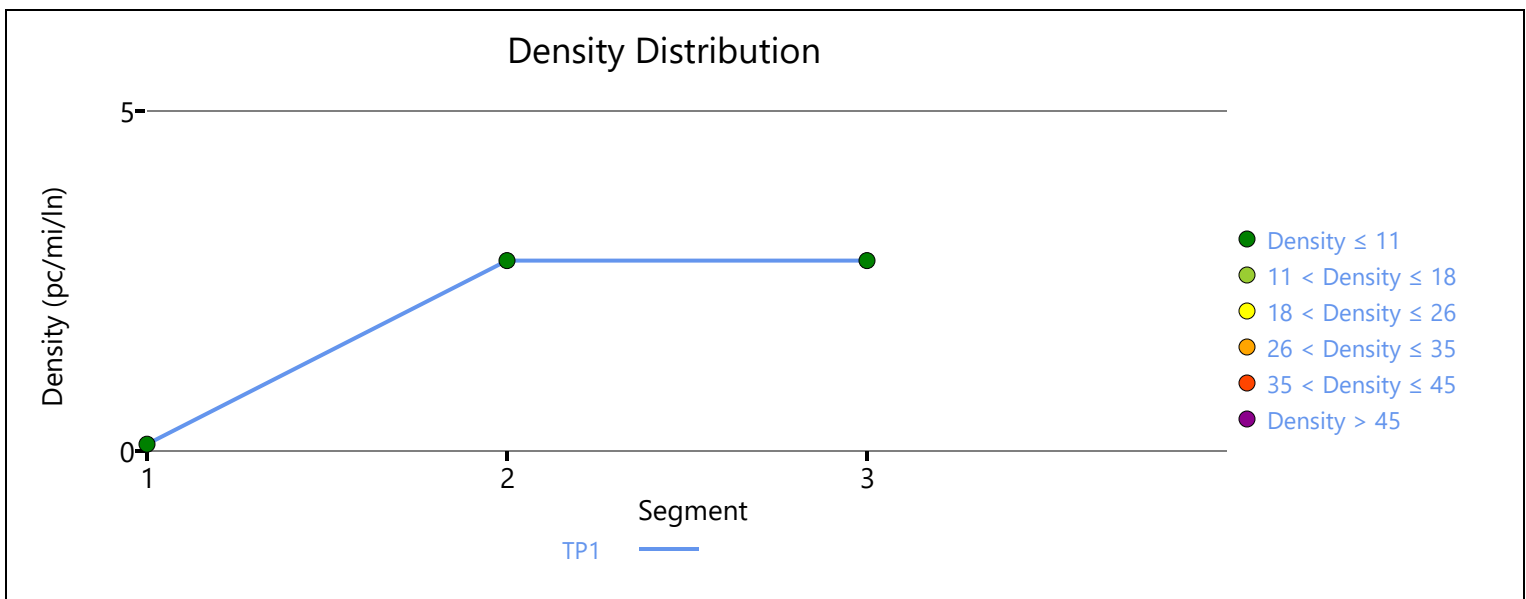
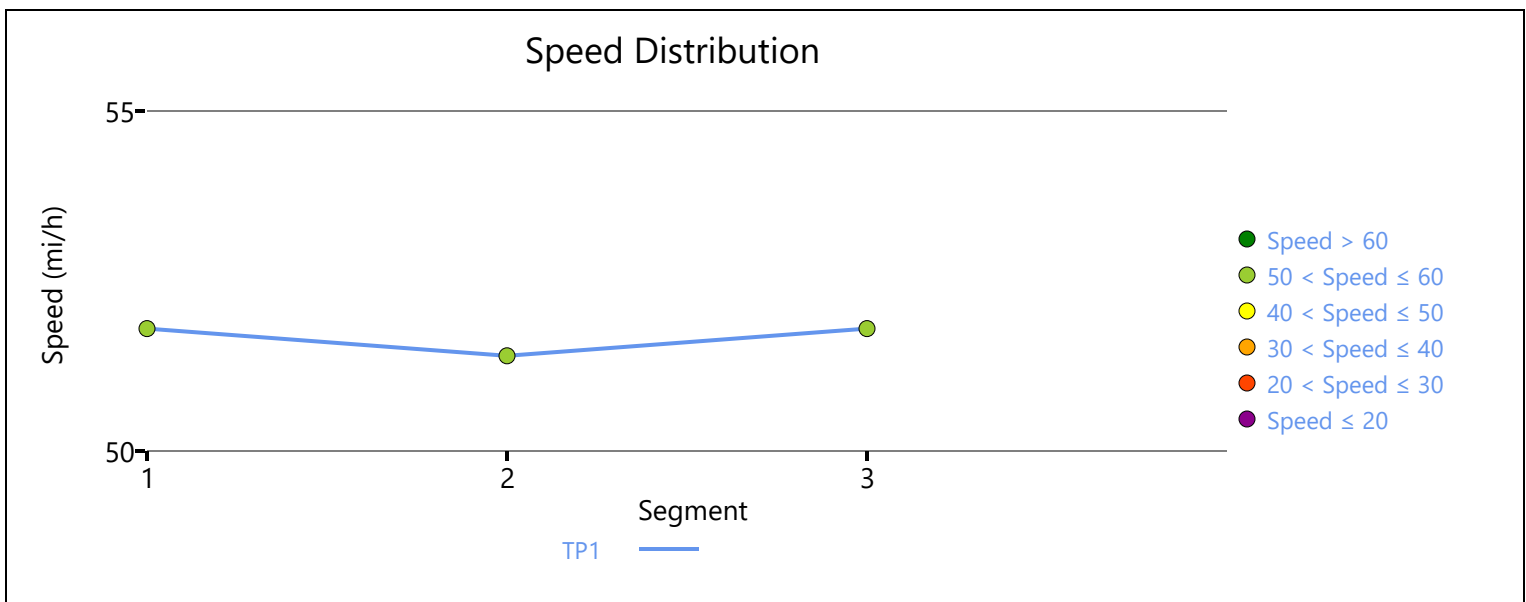
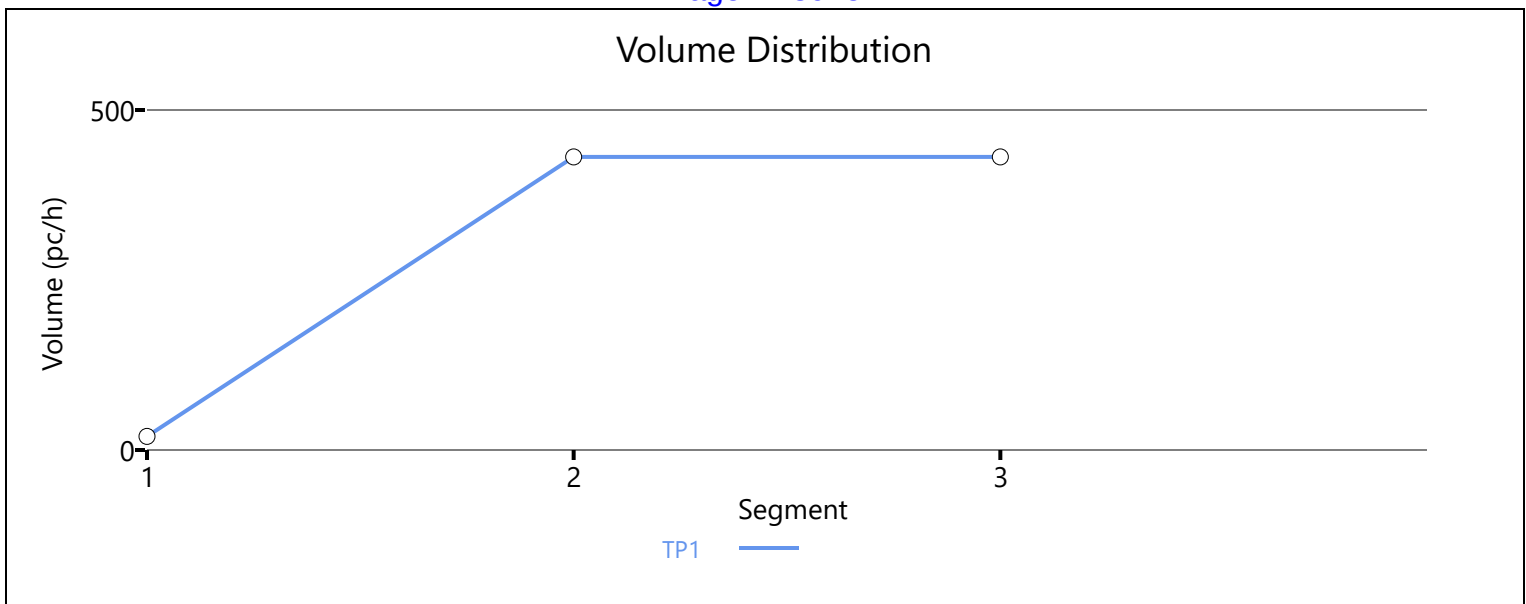
## Facility Overall Results

Space Mean Speed, mi/h	51.7	Density, veh/mi/ln	1.4
Average Travel Time, min	1.20	Density, pc/mi/ln	1.6

## Messages

## Comments

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## HCS7 Freeway Facilities Report

## Project Information

Analyst		Date	1/10/2024
Agency	WSP	Analysis Year	adopted toll structure
Jurisdiction		Time Analyzed	LN
Project Description	NJTP Eastern Spur SB	Units	U.S. Customary

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Analysis Periods	1	Analysis Period Duration, min	15
Facility Length, mi	1.29		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic		2500	3
2	Diverge	Basic	-	1800	3
3	Basic	Basic		2500	3

## Facility Segment Data

## Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.899	431	6654	0.06	51.8	2.8	A

## Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.94	0.94	0.899	0.906	431	412	6750	4200	0.06	0.10	54.9	55.0	2.6	2.6	A

## Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	0.706	20	6654	0.00	51.8	0.1	A

## Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	53.0	1.8	1.6	1.50	A

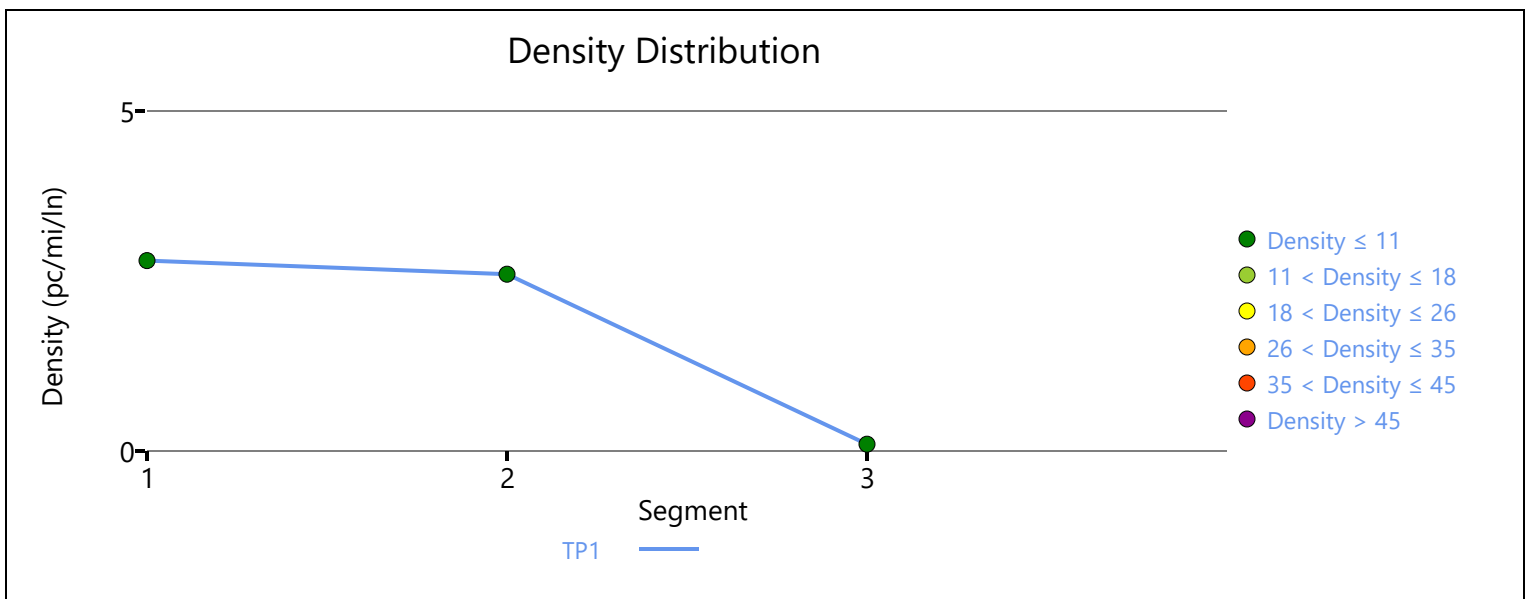
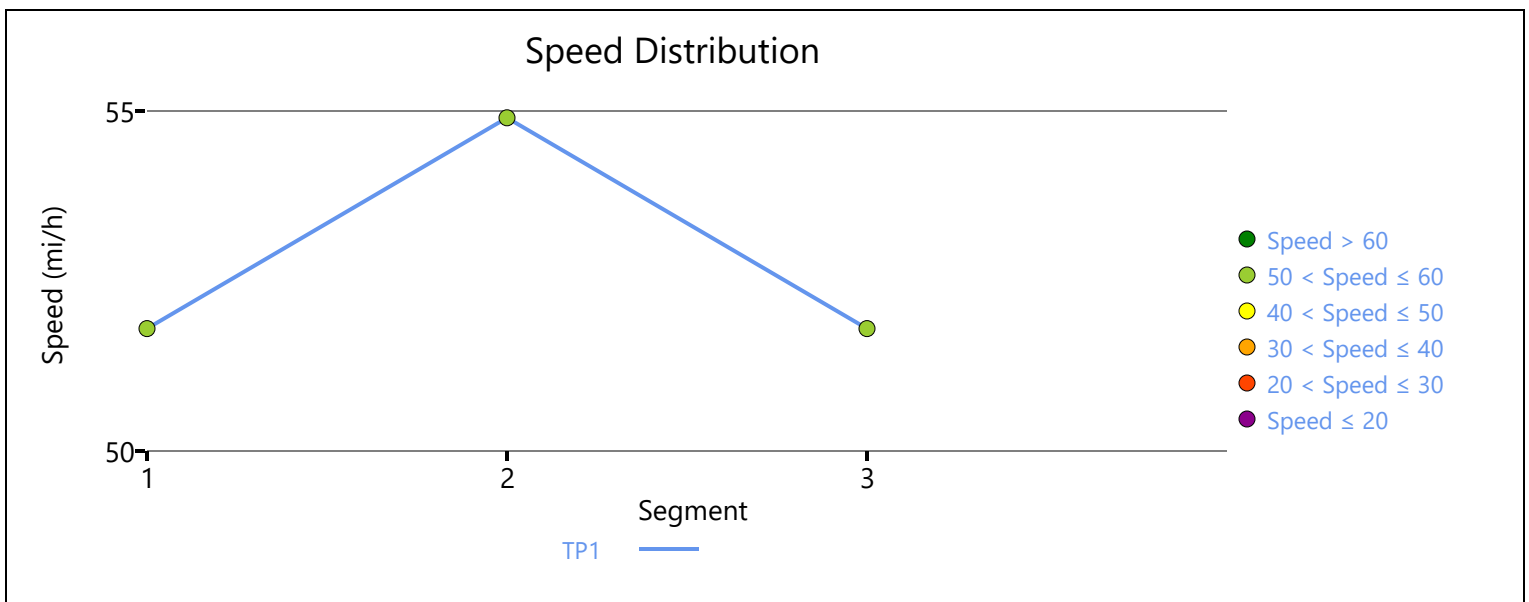
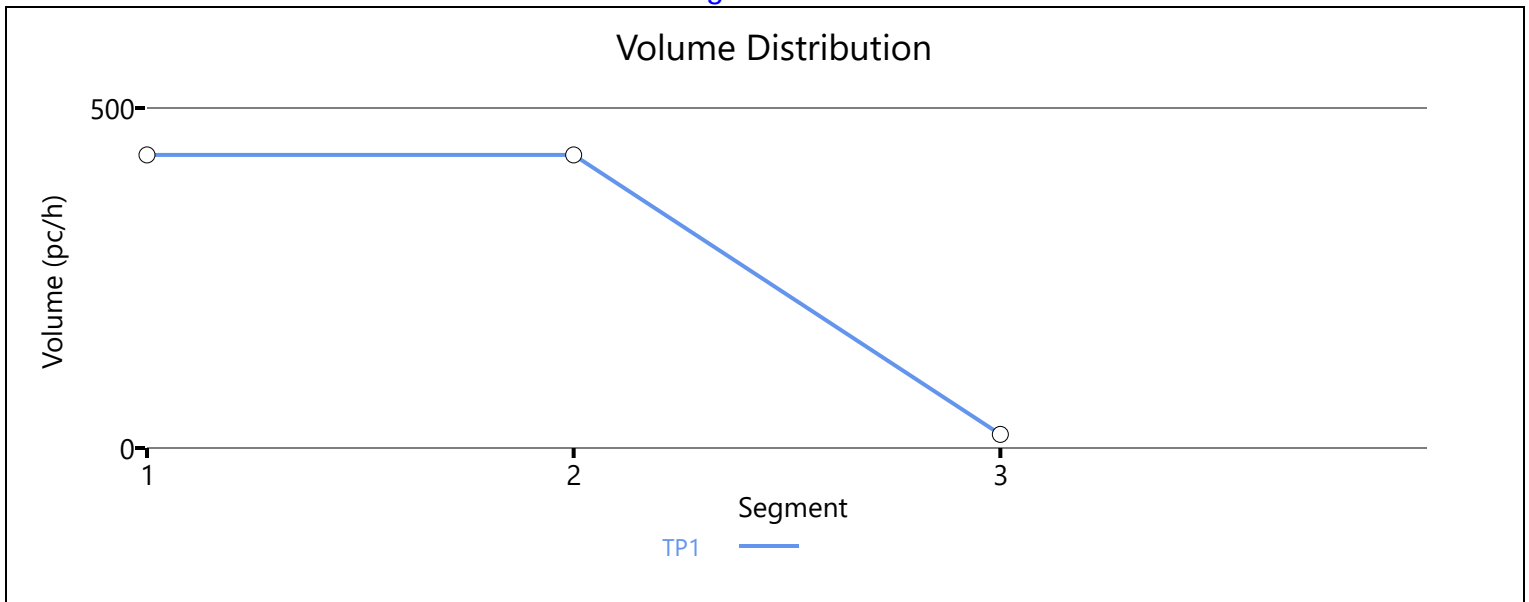
## Facility Overall Results

Space Mean Speed, mi/h	53.0	Density, veh/mi/ln	1.6
Average Travel Time, min	1.50	Density, pc/mi/ln	1.8

## Messages

WARNING 1	Ramp segment length is longer than 1500 feet for segment 2.
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CENTRAL BUSINESS DISTRICT (CBD) TOLLING PROGRAM

# Appendix 4C, Transportation: Supporting Documentation for Transit Analyses

2024







4C-1 LINE HAUL SCREENING RESULTS PER SECTOR

Table 4C-1. Projected New Passenger-Trips at Maximum Load Point for Routes Crossing into the Manhattan CBD at the 60th Street Boundary, (2023 AM Peak Period and Hour) with Adopted Toll Structure Added

MODE	FINAL EA (SCENARIO E)		ADOPTED TOLL STRUCTURE	
	Peak Period	Peak Hour	Peak Period	Peak Hour
Subway				
Broadway				
No. 1	892	232	568	148
No. 2	807	210	505	131
No. 3	530	138	259	67
Lexington Avenue				
No. 4	558	145	336	87
No. 5	348	90	321	83
No. 6	870	226	876	228
Eighth Avenue				
A	690	179	402	104
B	387	101	229	60
C	220	57	109	28
D	636	165	432	112
Second Avenue (Q)	603	157	260	68
Commuter Rail (Metro-North Railroad)				
Harlem	722	311	379	163
Hudson	632	272	198	85
New Haven	494	212	1,017	437
Buses				
York Avenue (1 route)	9	2	4	1
Second Avenue (2 routes)	48	12	19	7
Lexington Avenue (4 routes)	38	10	15	5
Fifth Avenue (13 routes)	103	27	36	15
Broadway (4 routes)	29	7	11	4
Columbus Avenue (1 route)	7	2	3	1
West End Avenue (1 route)	8	2	19	7

Source: WSP, Best Practice Model; analysis prepared by WSP and FHI Studio.  
Note: MTA NYCT data was used to analyze maximum load points for bus routes as of 2019.

The tolling scenario used to derive this analysis matches the representative tolling scenario in Table 4C-12.

Table 4C-2. Projected Incremental Ridership Increases at Maximum Load Point for Routes Crossing into the Manhattan CBD at the 60th Street Boundary (2023 AM Peak Hour) with Adopted Toll Structure Added

			FINAL EA (SCENARIO E)				ADOPTED TOLL STRUCTURE			
MODE	SCHEDULED TRAINS		NEW PASSENGER-TRIPS		NEW PASSENGER-TRIPS		NEW PASSENGER-TRIPS		NEW PASSENGER-TRIPS	
	Trips/Hour	Trips/Hour	Peak Period	Peak Hour	Per Train	Per Car	Peak Period	Peak Hour	Per Train	Per Car
Commuter Rail (Metro-North Railroad)										
New Haven	21	8	494	229	10.12	1.26	1,017	437	20.82	2.60

Source: WSP, Best Practice Model; analysis prepared by WSP and FHI Studio.

Note: The tolling scenario used to derive this analysis matches the representative tolling scenario in Table 4C-12.

Table 4C-3. Projected New Passenger-Trips at Maximum Load Point for Routes Crossing into the Manhattan CBD from Queens/Roosevelt Island, (2023 AM Peak Hour) with Adopted Toll Structure Added

MODE	FINAL EA (SCENARIO E)		ADOPTED TOLL STRUCTURE	
	PEAK PERIOD	AM PEAK HOUR	PEAK PERIOD	AM PEAK HOUR
Subway				
60th Street Tunnel (R)	657	171	509	132
60th Street Tunnel				
N	386	100	356	93
W	369	96	348	90
53rd Street Tunnel				
M	1,014	264	772	201
E	876	228	669	174
Steinway Tunnel				
No. 7 (Local)	1,449	377	1,140	296
No. 7 (Express)	600	156	602	157
63rd Street Tunnel (F)	1,073	279	865	225
Commuter Rail (Long Island Rail Road)				
Babylon	808	331	264	108
Far Rockaway	147	60	120	49
Hempstead	127	52	97	40
Long Beach	50	20	67	27
Montauk	18	8	4	1
Oyster Bay	32	13	29	12
Port Jefferson	276	113	105	43
Port Washington	368	151	89	36
Ronkonkoma	232	95	54	22
West Hempstead	0	0	0	0
Buses				
Queens-Midtown Tunnel (33 routes)	94	25	44	11
Ed Koch Queensboro Bridge (3 routes)	41	11	37	13

Source: WSP, Best Practice Model; analysis prepared by WSP and FHI Studio.

Note: The tolling scenario used to derive this analysis matches the representative tolling scenario in **Table 4C-15**. The projected ridership changes have been rounded to zero (0) for estimates at or below zero, to account for variability/noise in the BPM for lines where existing ridership is already relatively low. MTA NYCT data was used to analyze maximum load points for bus routes as of 2019.

Table 4C-4. Projected New Passenger-Trips at Maximum Load Point for Routes Crossing into the Manhattan CBD from Brooklyn (2023 AM Peak Period and Hour) with Adopted Toll Structure Added

MODE	FINAL EA (SCENARIO E)		ADOPTED TOLL STRUCTURE	
	AM PEAK PERIOD	AM PEAK HOUR	AM PEAK PERIOD	AM PEAK HOUR
Subway				
Clark Street Tunnel				
No. 2	165	43	332	86
No. 3	345	90	285	74
Joralemon Street Tunnel				
No. 4	664	173	613	159
No. 5	588	153	565	147
Cranberry Street Tunnel				
A	859	224	731	190
C	334	87	255	66
Rutgers Street Tunnel (F)	1,033	269	706	184
Canarsie Tunnel (L)	976	254	787	205
Williamsburg Bridge				
J	674	175	582	151
M	502	130	381	99
Manhattan Bridge				
B	616	160	459	119
D	867	226	815	212
N	634	165	610	159
Q	685	178	547	142
Montague Street Tunnel (R)	640	166	561	146
Buses				
Hugh L. Carey Tunnel (6 routes)	45	12	21	5
Williamsburg Bridge (1 route)	0	0	0	0

Source: WSP, Best Practice Model; analysis prepared by WSP and FHI Studio.

Note: MTA NYCT data was used to analyze maximum load points for bus routes as of 2019. The tolling scenario used to derive this analysis matches the representative tolling scenario in **Table 4C-18**.

Table 4C-5. Projected New Passenger-Trips at Maximum Load Point for Staten Island Express Bus Routes (2023 AM Peak Period and Hour) with Adopted Toll Structure Added

MODE	FINAL EA (SCENARIO E)		ADOPTED TOLL STRUCTURE	
	AM PEAK PERIOD	AM PEAK HOUR	AM PEAK PERIOD	AM PEAK HOUR
Bus				
Staten Island express via Hugh L. Carey Tunnel (16 routes)	447	116	403	105
Staten Island express via Lincoln Tunnel (5 routes)	66	17	37	10

Source: WSP, Best Practice Model; analysis prepared by WSP and FHI Studio.

Note: MTA NYCT data was used to analyze maximum load points for bus routes as of 2019. The tolling scenario used to derive this analysis matches the representative tolling scenario in Table 4C-21.

Table 4C-6. Projected New Passenger-Trips at Maximum Load Point for Routes Crossing into the Manhattan CBD from New Jersey/West of Hudson (2023 AM Peak Period and Peak Hour) with Adopted Toll Structure Added

MODE	FINAL EA (SCENARIO E)		ADOPTED TOLL STRUCTURE	
	AM PEAK PERIOD	AM PEAK HOUR	AM PEAK PERIOD	AM PEAK HOUR
Subway				
PATH (33rd Street)				
Hoboken Line	898	234	513	133
Journal Square Line	657	171	463	120
PATH (World Trade Center)				
Hoboken Line	605	157	327	85
Newark Line	596	155	468	122
Commuter Rail (NJ TRANSIT)*				
Montclair-Boonton Line	305	125	256	110
Morris & Essex Line	273	112	215	92
Northeast Corridor Line	420	172	136	59
North Jersey Coast Line	309	127	102	44
Buses				
Lincoln Tunnel (104 routes)	1,462	380	804	209
Holland Tunnel (13 routes)	91	24	126	33

Source: WSP, Best Practice Model; analysis prepared by WSP and FHI Studio.

Note: The tolling scenario used to derive this analysis matches the representative tolling scenario in Table 4C-23.

\* Metro-North west-of-Hudson commuter trains (Port Jervis, Pascack Valley) transfer at Secaucus Junction to enter the Manhattan CBD and are therefore incorporated into NJ TRANSIT incremental passenger-trips

4C-2      LEVEL OF SERVICE TABLES – NEW YORK CITY

NOTE: Tables are arranged in alphabetical order by station.

Table 4C-7.      Final EA (Scenario E): Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Stair Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
QBL M3/S3	Street stair at southeast corner of 21st Street and 44th Drive	5.00	4.00	300	207	94	65	90%	90%	80%	0.34	A
QBL M4/S4	Street stair at northeast corner of 21st Street and 44th Drive	5.00	4.00	481	305	150	95	90%	90%	80%	0.53	B
QBL O6/O7	Street stair at southeast corner of 23rd Street and 44th Drive	10.00	8.50	540	313	169	98	90%	90%	80%	0.27	A
XTN M1/S1	Street stair at northeast corner of Jackson Avenue and Pearson Street	5.00	4.00	52	45	16	14	90%	90%	80%	0.07	A
XTN M3/S3	Street stair at southwest corner of Jackson Avenue and Court Square	5.50	4.50	241	537	75	168	90%	90%	80%	0.48	B
XTN O1/O2	Street stair at northeast corner of Jackson Avenue and 45th Avenue	9.00	7.75	225	294	70	92	90%	90%	80%	0.18	A
O3/O4	Stair in Citicorp Building/One Court Square	9.00	7.75	13	30	4	9	90%	90%	80%	0.02	A
FLU M1/S1	Street stair at southeast corner of Jackson Avenue and 23rd Street	8.00	6.75	162	110	51	34	90%	90%	80%	0.11	A
FLU M2/S2	Street stair at northwest corner of 23rd Street and 45th Road	5.00	4.00	222	151	69	47	90%	90%	80%	0.25	A
QBL P1	Connecting stair between N308 paid zone and Queens-bound E/M platform	14.00	12.75	668	1,288	209	403	90%	80%	75%	0.46	B
QBL P2	Connecting stair between N308 paid zone and Manhattan-bound E/M platform	14.00	12.75	4,343	1,597	1,357	499	90%	80%	75%	1.37	E
QBL P3	Connecting stair between N307 paid zone and Queens-bound E/M platform	11.00	9.75	60	245	19	77	90%	80%	75%	0.10	A
QBL P4	Connecting stair between N307 paid zone and Manhattan-bound E/M platform	11.00	9.75	738	264	231	83	90%	80%	75%	0.30	A
FLU P1/P3	Connecting stair between R508 paid zone and Queens-bound 7 platform	8.00	6.75	732	918	229	287	90%	80%	75%	0.73	C
FLU P2/P4	Connecting stair between R508 paid zone and Manhattan-bound 7 platform	7.50	6.25	1767	2188	552	684	90%	80%	75%	1.90	F+
O3/O4/O5	Connecting stair between 7 train mezzanine and G train mezzanine	7.00	6.00	208	880	65	275	90%	80%	80%	0.52	B
XTN P1	Connecting stair between N400C paid zone and G train platform	8.75	7.50	1,434	335	448	105	90%	80%	75%	0.69	B
XTN P2	Connecting stair between N400 paid zone and G train platform	9.25	8.00	710	1,145	222	358	90%	80%	75%	0.70	B
XTN P3	Connecting stair between N400 paid zone and G train platform	9.25	8.00	657	1,910	205	597	90%	80%	75%	0.97	C
XTN P5	Connecting stair between N400B paid zone and G train platform	7.00	6.00	10	604	3	189	100%	80%	75%	0.28	A
XTN P6	Connecting stair between N400B paid zone and G train platform	9.25	8.00	57	945	18	295	90%	80%	75%	0.39	A
XTN P7	Connecting stair between N400C paid zone and G train platform	9.25	8.00	160	1,006	50	314	90%	80%	75%	0.45	A
QBL M1	Connecting stair between E/M platforms and N308 paid zone	13.00	11.75	4,343	1,597	1,357	499	90%	80%	80%	1.46	E
NOTE: + denotes a significant adverse effect												

Table 4C-8.      Final EA (Scenario E): Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Escalator Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E265	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	157	0	49	0	750	0.07	A
E266	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	0	324	0	101	750	0.15	A
E461X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	0	1,703	0	532	1,050	0.56	B
E462X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	2,253	0	704	0	1,050	0.74	C

Table 4C-9. Final EA (Scenario E): Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Fare Array Area Analysis (AM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
21st Street and 44th Drive - northeast corner (N307)											
Two-Way Turnstiles	4	1,680	2,580	781	307	244	96	90%	80%	0.21	A
21st Street and 44th Drive – southeast corner (N307A)											
High Exit Only Turnstile	2	0	1,110	0	208	0	65	100%	80%	0.07	A
23rd Street and 44th Road – northeast corner (N308)											
Two-Way Turnstiles	4	1,680	2,580	540	313	169	98	90%	75%	0.17	A
Jackson Avenue and Pearson Street – northeast corner (N400C)											
HEET	2	510	1,080	52	45	16	14	90%	80%	0.05	A
Jackson Avenue and Court Square – southwest corner (N400)											
Two-Way Turnstiles	3	1,260	1,935	241	537	75	168	90%	80%	0.19	A
Jackson Avenue and 45th Avenue – northeast corner (N400B)											
Two-Way Turnstiles	3	1,260	1,935	225	294	70	92	90%	80%	0.13	A
Citicorp Building/One Court Square (N400A)											
Two-Way Turnstiles	7	2,940	4,515	170	354	53	111	90%	80%	0.05	A
Jackson Avenue and 23rd Street – southeast corner (R508)											
Two-Way Turnstiles	6	2,520	3,870	384	261	120	82	90%	80%	0.08	A



Table 4C-10. Final EA (Scenario E): Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Stair Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
QBL M3/S3	Street stair at southeast corner of 21st Street and 44th Drive	5.00	4.00	182	373	57	117	90%	90%	80%	0.39	A
QBL M4/S4	Street stair at northeast corner of 21st Street and 44th Drive	5.00	4.00	442	167	138	52	90%	90%	80%	0.40	A
QBL O6/O7	Street stair at southeast corner of 23rd Street and 44th Drive	10.00	8.50	383	220	120	69	90%	90%	80%	0.19	A
XTN M1/S1	Street stair at northeast corner of Jackson Avenue and Pearson Street	5.00	4.00	52	40	16	13	90%	90%	80%	0.06	A
XTN M3/S3	Street stair at southwest corner of Jackson Avenue and Court Square	5.50	4.50	446	266	139	83	90%	90%	80%	0.43	A
XTN O1/O2	Street stair at northeast corner of Jackson Avenue and 45th Avenue	9.00	7.75	339	110	106	34	90%	90%	80%	0.15	A
O3/O4	Stair in Citicorp Building/One Court Square	9.00	7.75	96	280	30	88	90%	90%	80%	0.14	A
FLU M1/S1	Street stair at southeast corner of Jackson Avenue and 23rd Street	8.00	6.75	398	148	124	46	90%	90%	80%	0.21	A
FLU M2/S2	Street stair at northwest corner of 23rd Street and 45th Road	5.00	4.00	358	170	112	53	90%	90%	80%	0.35	A
QBL P1	Connecting stair between N308 paid zone and Queens-bound E/M platform	14.00	12.75	1,357	1,826	424	571	90%	80%	75%	0.75	C
QBL P2	Connecting stair between N308 paid zone and Manhattan-bound E/M platform	14.00	12.75	1,811	639	566	200	90%	80%	75%	0.57	B
QBL P3	Connecting stair between N307 paid zone and Queens-bound E/M platform	11.00	9.75	215	434	67	136	90%	80%	75%	0.20	A
QBL P4	Connecting stair between N307 paid zone and Manhattan-bound E/M platform	11.00	9.75	414	144	129	45	90%	80%	75%	0.17	A
FLU P1/P3	Connecting stair between R508 paid zone and Queens-bound 7 platform	8.00	6.75	1,865	1,204	583	376	90%	80%	75%	1.35	E
FLU P2/P4	Connecting stair between R508 paid zone and Manhattan-bound 7 platform	7.50	6.25	848	948	265	296	90%	80%	75%	0.86	C
O3/O4/O5	Connecting stair between 7 train mezzanine and G train mezzanine	7.00	6.00	123	459	38	143	90%	80%	80%	0.28	A
XTN P1	Connecting stair between N400C paid zone and G train platform	8.75	7.50	2,415	199	755	62	90%	80%	75%	1.01	D
XTN P2	Connecting stair between N400 paid zone and G train platform	9.25	8.00	1,188	691	371	216	90%	80%	75%	0.70	B
XTN P3	Connecting stair between N400 paid zone and G train platform	9.25	8.00	1,100	1,152	344	360	90%	80%	75%	0.84	C
XTN P5	Connecting stair between N400B paid zone and G train platform	7.00	6.00	17	363	5	113	100%	80%	75%	0.17	A
XTN P6	Connecting stair between N400B paid zone and G train platform	9.25	8.00	96	569	30	178	90%	80%	75%	0.25	A
XTN P7	Connecting stair between N400C paid zone and G train platform	9.25	8.00	268	596	84	186	90%	80%	75%	0.33	A
QBL M1	Connecting stair between E/M platforms and N308 paid zone	13.00	11.75	1,811	639	566	200	90%	80%	80%	0.60	B

Table 4C-11. Final EA (Scenario E): Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Escalator Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E265	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	239	0	75	0	750	0.11	A
E266	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	0	209	0	65	750	0.10	A
E461X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	0	1,824	0	570	1,050	0.60	B
E462X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	1,922	0	601	0	1,050	0.64	B

Table 4C-12. Final EA (Scenario E): Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Fare Array Area Analysis (PM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
21st Street and 44th Drive - northeast corner (N307)											
Two-Way Turnstiles	4	1,680	2,580	624	176	195	55	90%	80%	0.16	A
21st Street and 44th Drive – southeast corner (N307A)											
High Exit Only Turnstile	2	0	1,110	0	394	0	123	100%	80%	0.14	A
23rd Street and 44th Road – northeast corner (N308)											
Two-Way Turnstiles	4	1,680	2,580	383	220	120	69	90%	75%	0.12	A
Jackson Avenue and Pearson Street – northeast corner (N400C)											
HEET	2	510	1,080	52	40	16	13	90%	80%	0.05	A
Jackson Avenue and Court Square – southwest corner (N400)											
Two-Way Turnstiles	3	1,260	1,935	446	288	139	90	90%	80%	0.19	A
Jackson Avenue and 45th Avenue – northeast corner (N400B)											
Two-Way Turnstiles	3	1,260	1,935	339	110	106	34	90%	80%	0.12	A
Citicorp Building/One Court Square (N400A)											
Two-Way Turnstiles	7	2,940	4,515	334	489	104	153	90%	80%	0.09	A
Jackson Avenue and 23rd Street – southeast corner (R508)											
Two-Way Turnstiles	6	2,520	3,870	756	318	236	99	90%	80%	0.14	A

Table 4C-13. Adopted Toll Structure: Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Stair Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
QBL M3/S3	Street stair at southeast corner of 21st Street and 44th Drive	5.00	4.00	298	208	93	65	90%	90%	80%	0.34	A
QBL M4/S4	Street stair at northeast corner of 21st Street and 44th Drive	5.00	4.00	478	306	149	96	90%	90%	80%	0.53	B
QBL O6/O7	Street stair at southeast corner of 23rd Street and 44th Drive	10.00	8.50	538	314	168	98	90%	90%	80%	0.27	A
XTN M1/S1	Street stair at northeast corner of Jackson Avenue and Pearson Street	5.00	4.00	52	46	16	14	90%	90%	80%	0.07	A
XTN M3/S3	Street stair at southwest corner of Jackson Avenue and Court Square	5.50	4.50	240	540	75	169	90%	90%	80%	0.48	B
XTN O1/O2	Street stair at northeast corner of Jackson Avenue and 45th Avenue	9.00	7.75	224	296	70	93	90%	90%	80%	0.19	A
O3/O4	Stair in Citicorp Building/One Court Square	9.00	7.75	13	30	4	9	90%	90%	80%	0.02	A
FLU M1/S1	Street stair at southeast corner of Jackson Avenue and 23rd Street	8.00	6.75	161	110	50	34	90%	90%	80%	0.11	A
FLU M2/S2	Street stair at northwest corner of 23rd Street and 45th Road	5.00	4.00	221	152	69	48	90%	90%	80%	0.25	A
QBL P1	Connecting stair between N308 paid zone and Queens-bound E/M platform	14.00	12.75	663	1294	207	404	90%	80%	75%	0.46	B
QBL P2	Connecting stair between N308 paid zone and Manhattan-bound E/M platform	14.00	12.75	4328	1598	1,353	499	90%	80%	75%	1.37	E
QBL P3	Connecting stair between N307 paid zone and Queens-bound E/M platform	11.00	9.75	60	248	19	78	90%	80%	75%	0.10	A
QBL P4	Connecting stair between N307 paid zone and Manhattan-bound E/M platform	11.00	9.75	734	263	229	82	90%	80%	75%	0.30	A
FLU P1/P3	Connecting stair between R508 paid zone and Queens-bound 7 platform	8.00	6.75	730	914	228	286	90%	80%	75%	0.73	C
FLU P2/P4	Connecting stair between R508 paid zone and Manhattan-bound 7 platform	7.50	6.25	1753	2194	548	686	90%	80%	75%	1.90	F+
O3/O4/O5	Connecting stair between 7 train mezzanine and G train mezzanine	7.00	6.00	208	876	65	274	90%	80%	80%	0.52	B
XTN P1	Connecting stair between N400C paid zone and G train platform	8.75	7.50	1450	334	453	104	90%	80%	75%	0.70	B
XTN P2	Connecting stair between N400 paid zone and G train platform	9.25	8.00	714	1144	223	358	90%	80%	75%	0.70	C
XTN P3	Connecting stair between N400 paid zone and G train platform	9.25	8.00	661	1909	207	597	90%	80%	75%	0.98	C
XTN P5	Connecting stair between N400B paid zone and G train platform	7.00	6.00	10	604	3	189	100%	80%	75%	0.28	A
XTN P6	Connecting stair between N400B paid zone and G train platform	9.25	8.00	58	944	18	295	90%	80%	75%	0.39	A
XTN P7	Connecting stair between N400C paid zone and G train platform	9.25	8.00	162	1004	51	314	90%	80%	75%	0.45	A
QBL M1	Connecting stair between E/M platforms and N308 paid zone	13.00	11.75	4328	1598	1,353	499	90%	80%	80%	1.46	E

NOTE: + denotes a significant adverse effect

Table 4C-14. Adopted Toll Structure: Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Escalator Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E265	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	157	0	49	0	750	0.07	A
E266	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	0	325	0	102	750	0.15	A
E461X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	0	1694	0	529	1,050	0.56	B
E462X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	2254	0	704	0	1,050	0.74	C

Table 4C-15. Adopted Toll Structure Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Fare Array Area Analysis (AM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
21st Street and 44th Drive - northeast corner (N307)											
Two-Way Turnstiles	4	1,680	2,580	777	308	243	96	0.90	0.80	0.21	A
21st Street and 44th Drive – southeast corner (N307A)											
High Exit Only Turnstile	2	0	1,110	0	209	0	65	1.00	0.80	0.07	A
23rd Street and 44th Road – northeast corner (N308)											
Two-Way Turnstiles	4	1,680	2,580	538	314	168	98	0.90	0.75	0.17	A
Jackson Avenue and Pearson Street – northeast corner (N400C)											
HEET	2	510	1,080	52	46	16	14	0.90	0.80	0.05	A
Jackson Avenue and Court Square – southwest corner (N400)											
Two-Way Turnstiles	3	1,260	1,935	240	540	75	169	0.90	0.80	0.19	A
Jackson Avenue and 45th Avenue – northeast corner (N400B)											
Two-Way Turnstiles	3	1,260	1,935	224	296	70	93	0.90	0.80	0.13	A
Citicorp Building/One Court Square (N400A)											
Two-Way Turnstiles	7	2,940	4,515	169	355	53	111	0.90	0.80	0.05	A
Jackson Avenue and 23rd Street – southeast corner (R508)											
Two-Way Turnstiles	6	2,520	3,870	382	262	119	82	0.90	0.80	0.08	A

Table 4C-16. Adopted Toll Structure: Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Stair Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
QBL M3/S3	Street stair at southeast corner of 21st Street and 44th Drive	5.00	4.00	183	372	57	116	90%	90%	80%	0.39	A
QBL M4/S4	Street stair at northeast corner of 21st Street and 44th Drive	5.00	4.00	444	167	139	52	90%	90%	80%	0.41	A
QBL O6/O7	Street stair at southeast corner of 23rd Street and 44th Drive	10.00	8.50	384	218	120	68	90%	90%	80%	0.19	A
XTN M1/S1	Street stair at northeast corner of Jackson Avenue and Pearson Street	5.00	4.00	53	40	17	13	90%	90%	80%	0.07	A
XTN M3/S3	Street stair at southwest corner of Jackson Avenue and Court Square	5.50	4.50	448	266	140	83	90%	90%	80%	0.43	A
XTN O1/O2	Street stair at northeast corner of Jackson Avenue and 45th Avenue	9.00	7.75	341	110	107	34	90%	90%	80%	0.15	A
O3/O4	Stair in Citicorp Building/One Court Square	9.00	7.75	96	278	30	87	90%	90%	80%	0.14	A
FLU M1/S1	Street stair at southeast corner of Jackson Avenue and 23rd Street	8.00	6.75	399	147	125	46	90%	90%	80%	0.22	A
FLU M2/S2	Street stair at northwest corner of 23rd Street and 45th Road	5.00	4.00	360	169	113	53	90%	90%	80%	0.36	A
QBL P1	Connecting stair between N308 paid zone and Queens-bound E/M platform	14.00	12.75	1321	1868	413	584	90%	80%	75%	0.75	C
QBL P2	Connecting stair between N308 paid zone and Manhattan-bound E/M platform	14.00	12.75	1734	647	542	202	90%	80%	75%	0.55	B
QBL P3	Connecting stair between N307 paid zone and Queens-bound E/M platform	11.00	9.75	216	449	68	140	90%	80%	75%	0.21	A
QBL P4	Connecting stair between N307 paid zone and Manhattan-bound E/M platform	11.00	9.75	417	124	130	39	90%	80%	75%	0.16	A
FLU P1/P3	Connecting stair between R508 paid zone and Queens-bound 7 platform	8.00	6.75	1864	1155	583	361	90%	80%	75%	1.33	D
FLU P2/P4	Connecting stair between R508 paid zone and Manhattan-bound 7 platform	7.50	6.25	839	896	262	280	90%	80%	75%	0.83	C
O3/O4/O5	Connecting stair between 7 train mezzanine and G train mezzanine	7.00	6.00	115	455	36	142	90%	80%	80%	0.27	A
XTN P1	Connecting stair between N400C paid zone and G train platform	8.75	7.50	2430	199	759	62	90%	80%	75%	1.02	D
XTN P2	Connecting stair between N400 paid zone and G train platform	9.25	8.00	1194	677	373	212	90%	80%	75%	0.69	B
XTN P3	Connecting stair between N400 paid zone and G train platform	9.25	8.00	1105	1129	345	353	90%	80%	75%	0.84	C
XTN P5	Connecting stair between N400B paid zone and G train platform	7.00	6.00	17	356	5	111	100%	80%	75%	0.17	A
XTN P6	Connecting stair between N400B paid zone and G train platform	9.25	8.00	97	558	30	174	90%	80%	75%	0.25	A
XTN P7	Connecting stair between N400C paid zone and G train platform	9.25	8.00	270	595	84	186	90%	80%	75%	0.33	A
QBL M1	Connecting stair between E/M platforms and N308 paid zone	13.00	11.75	1734	647	542	202	90%	80%	80%	0.59	B

Table 4C-17. Adopted Toll Structure: Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Escalator Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E265	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	240	0	75	0	750	0.11	A
E266	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	0	207	0	65	750	0.10	A
E461X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	0	1816	0	568	1,050	0.60	B
E462X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	1831	0	572	0	1,050	0.61	B

Table 4C-18. Adopted Toll Structure: Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Fare Array Area Analysis (PM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
21st Street and 44th Drive - northeast corner (N307)											
Two-Way Turnstiles	4	1,680	2,580	627	175	196	55	0.90	0.80	0.16	A
21st Street and 44th Drive – southeast corner (N307A)											
High Exit Only Turnstile	2	0	1,110	0	391	0	122	1.00	0.80	0.14	A
23rd Street and 44th Road – northeast corner (N308)											
Two-Way Turnstiles	4	1,680	2,580	384	218	120	68	0.90	0.75	0.12	A
Jackson Avenue and Pearson Street – northeast corner (N400C)											
HEET	2	510	1,080	53	40	17	13	0.90	0.80	0.05	A
Jackson Avenue and Court Square – southwest corner (N400)											
Two-Way Turnstiles	3	1,260	1,935	448	286	140	89	0.90	0.80	0.19	A
Jackson Avenue and 45th Avenue – northeast corner (N400B)											
Two-Way Turnstiles	3	1,260	1,935	341	110	107	34	0.90	0.80	0.12	A
Citicorp Building/One Court Square (N400A)											
Two-Way Turnstiles	7	2,940	4,515	336	486	105	152	0.90	0.80	0.09	A
Jackson Avenue and 23rd Street – southeast corner (R508)											
Two-Way Turnstiles	6	2,520	3,870	759	316	237	99	0.90	0.80	0.14	A

Table 4C-19. Final EA (Scenario E): Main Street- Flushing Station (No. 7 line) – Stair Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
S6/M6	Street stair at northwest corner of Roosevelt Avenue and Main Street	6.00	5.00	2225	692	695	216	90%	90%	80%	1.54	E
S4/M4	Street stair at northeast corner of Roosevelt Avenue and Main Street	5.00	4.00	1,241	442	388	138	90%	100%	80%	1.04	D
S7/M7	Street stair at southwest corner of Roosevelt Avenue and Main Street	5.00	4.00	817	805	255	252	90%	80%	80%	1.17	D
S3	Street stair at southeast corner of Roosevelt Avenue and Main Street	5.00	4.00	143	88	45	28	90%	100%	80%	0.15	A
S5	Street stair at southeast corner of Roosevelt Avenue and Main Street	4.80	3.80	1,977	355	618	111	90%	80%	80%	1.78	F
M3/M5	Street stair at southeast corner of Roosevelt Avenue and Main Street	11.50	10.25	2,119	442	662	138	90%	90%	80%	0.66	B
M11	Street stair on south side of Roosevelt Avenue between Main Street and Union Street	10.00	8.75	562	8	176	3	100%	80%	75%	0.17	A
P11	Connecting stair between platform and R533 paid zone west	4.25	3.25	2,423	442	757	138	90%	80%	75%	2.58	F
P12	Connecting stair between platform and R533 paid zone west	4.25	3.25	532	264	166	83	90%	80%	75%	0.73	C
P15	Connecting stair between platform and R533 paid zone west	4.25	3.25	1,113	294	348	92	90%	80%	75%	1.27	D
P16	Connecting stair between platform and R533 paid zone west	4.25	3.25	82	191	26	60	90%	80%	75%	0.26	A
P3	Connecting stair between platform and R533 paid zone east	4.25	3.25	146	315	46	98	90%	80%	75%	0.43	A
P4	Connecting stair between platform and R533 paid zone east	4.25	3.25	24	194	8	61	90%	80%	75%	0.21	A
P5/P7	Connecting stair between platform and R533 paid zone east	4.25	3.25	1,902	424	594	133	90%	80%	75%	2.10	F
P6/P8	Connecting stair between platform and R533 paid zone east	4.25	3.25	207	256	65	80	90%	80%	75%	0.43	A



Table 4C-20. Final EA (Scenario E): Main Street- Flushing Station (No. 7 line) – Escalator Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E455	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	899	0	281	1,050	0.36	A
E456	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	3,040	0	950	0	1,050	1.21	D+
E457	Street escalator at south side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	393	0	123	1,050	0.16	A
NOTE: + denotes a significant adverse effect											

Table 4C-21. Final EA (Scenario E): Main Street- Flushing Station (No. 7 line) – Fare Array Area Analysis (AM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
Main Street and Roosevelt Avenue (R533-West)											
Two-Way Turnstiles	8	3,360	5,160	4,149	1,191	1,297	372	90%	80%	0.53	B
Main Street and Roosevelt Avenue (R533-East)											
Two-Way Turnstiles	8	3,360	5,160	2,254	1,189	704	372	90%	80%	0.33	A
Roosevelt Avenue between Main Street and Union Street (R534)											
Two-Way Turnstiles	9	3,780	5,805	3,603	1,301	1,126	407	90%	75%	0.43	A

Table 4C-22. Final EA (Scenario E): Main Street- Flushing Station (No. 7 line) – Stair Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
S6/M6	Street stair at northwest corner of Roosevelt Avenue and Main Street	6.00	5.00	820	1,507	256	471	90%	90%	80%	1.29	D
S4/M4	Street stair at northeast corner of Roosevelt Avenue and Main Street	5.00	4.00	615	891	192	278	90%	100%	80%	1.00	C
S7/M7	Street stair at southwest corner of Roosevelt Avenue and Main Street	5.00	4.00	497	1,495	155	467	90%	80%	80%	1.44	E
S3	Street stair at southeast corner of Roosevelt Avenue and Main Street	5.00	4.00	249	613	78	192	90%	100%	80%	0.59	B
S5	Street stair at southeast corner of Roosevelt Avenue and Main Street	4.80	3.80	592	1,273	185	398	90%	80%	80%	1.42	E
M3/M5	Street stair at southeast corner of Roosevelt Avenue and Main Street	11.50	10.25	841	1,886	263	589	90%	90%	80%	0.74	C
M11	Street stair on south side of Roosevelt Avenue between Main Street and Union Street	10.00	8.75	73	69	23	22	90%	80%	75%	0.05	A
P11	Connecting stair between platform and R533 paid zone west	4.25	3.25	476	619	149	193	90%	80%	75%	1.01	D
P12	Connecting stair between platform and R533 paid zone west	4.25	3.25	1,085	984	339	308	90%	80%	75%	1.90	F
P15	Connecting stair between platform and R533 paid zone west	4.25	3.25	39	680	12	213	100%	80%	75%	0.61	B
P16	Connecting stair between platform and R533 paid zone west	4.25	3.25	124	867	39	271	90%	80%	75%	0.93	C
P3	Connecting stair between platform and R533 paid zone east	4.25	3.25	35	525	11	164	90%	80%	75%	0.53	B
P4	Connecting stair between platform and R533 paid zone east	4.25	3.25	25	809	8	253	100%	80%	75%	0.71	C
P5/P7	Connecting stair between platform and R533 paid zone east	4.25	3.25	348	538	109	168	90%	80%	75%	0.82	C
P6/P8	Connecting stair between platform and R533 paid zone east	4.25	3.25	633	756	198	236	90%	80%	75%	1.28	D

Table 4C-23. Final EA (Scenario E): Main Street- Flushing Station (No. 7 line) – Escalator Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E455	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	1,362	0	426	1,050	0.54	B
E456	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	706	0	221	0	1,050	0.28	A
E457	Street escalator at south side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	1,562	0	488	1,050	0.62	B

Table 4C-24. Final EA (Scenario E): Main Street- Flushing Station (No. 7 line) – Fare Array Area Analysis (PM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
Main Street and Roosevelt Avenue (R533-West)											
Two-Way Turnstiles	8	3,360	5,160	1,724	3,150	539	984	90%	80%	0.44	A
Main Street and Roosevelt Avenue (R533-East)											
Two-Way Turnstiles	8	3,360	5,160	1,048	2,629	328	822	90%	80%	0.33	A
Roosevelt Avenue between Main Street and Union Street (R534)											
Two-Way Turnstiles	9	3,780	5,805	778	2,993	243	935	90%	75%	0.31	A

Table 4C-25. Adopted Toll Structure: Main Street- Flushing Station (No. 7 line) – Stair Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
S6/M6	Street stair at northwest corner of Roosevelt Avenue and Main Street	6.00	5.00	2228	694	696	217	90%	90%	80%	1.55	E
S4/M4	Street stair at northeast corner of Roosevelt Avenue and Main Street	5.00	4.00	1,243	444	388	139	90%	100%	80%	1.04	D
S7/M7	Street stair at southwest corner of Roosevelt Avenue and Main Street	5.00	4.00	818	807	256	252	90%	80%	80%	1.18	D
S3	Street stair at southeast corner of Roosevelt Avenue and Main Street	5.00	4.00	143	88	45	28	90%	100%	80%	0.15	A
S5	Street stair at southeast corner of Roosevelt Avenue and Main Street	4.80	3.80	1,980	355	619	111	90%	80%	80%	1.78	F
M3/M5	Street stair at southeast corner of Roosevelt Avenue and Main Street	11.50	10.25	2,122	444	663	139	90%	90%	80%	0.66	B
M11	Street stair on south side of Roosevelt Avenue between Main Street and Union Street	10.00	8.75	563	8	176	3	100%	80%	75%	0.17	A
P11	Connecting stair between platform and R533 paid zone west	4.25	3.25	2,426	444	758	139	90%	80%	75%	2.58	F
P12	Connecting stair between platform and R533 paid zone west	4.25	3.25	533	264	167	83	90%	80%	75%	0.73	C
P15	Connecting stair between platform and R533 paid zone west	4.25	3.25	1,114	295	348	92	90%	80%	75%	1.27	D
P16	Connecting stair between platform and R533 paid zone west	4.25	3.25	82	192	26	60	90%	80%	75%	0.26	A
P3	Connecting stair between platform and R533 paid zone east	4.25	3.25	147	316	46	99	90%	80%	75%	0.43	A
P4	Connecting stair between platform and R533 paid zone east	4.25	3.25	24	195	8	61	90%	80%	75%	0.21	A
P5/P7	Connecting stair between platform and R533 paid zone east	4.25	3.25	1,906	425	596	133	90%	80%	75%	2.10	F
P6/P8	Connecting stair between platform and R533 paid zone east	4.25	3.25	208	257	65	80	90%	80%	75%	0.43	A



Table 4C-26. Adopted Toll Structure: Main Street- Flushing Station (No. 7 line) – Escalator Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E455	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	901	0	282	1,050	0.36	A
E456	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	3045	0	952	0	1,050	1.21	D+
E457	Street escalator at south side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	394	0	123	1,050	0.16	A
NOTE: + denotes a significant adverse effect											

Table 4C-27. Adopted Toll Structure: Main Street- Flushing Station (No. 7 line) – Fare Array Area Analysis (AM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
Main Street and Roosevelt Avenue (R533-West)											
Two-Way Turnstiles	8	3,360	5,160	4,155	1,194	1,298	373	0.90	0.80	0.53	B
Main Street and Roosevelt Avenue (R533-East)											
Two-Way Turnstiles	8	3,360	5,160	2,257	1,192	705	373	0.90	0.80	0.33	A
Roosevelt Avenue between Main Street and Union Street (R534)											
Two-Way Turnstiles	9	3,780	5,805	3,608	1,304	1,128	408	0.90	0.75	0.44	A

Table 4C-28. Adopted Toll Structure: Main Street- Flushing Station (No. 7 line) – Stair Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
S6/M6	Street stair at northwest corner of Roosevelt Avenue and Main Street	6.00	5.00	823	1,510	257	472	90%	90%	80%	1.30	D
S4/M4	Street stair at northeast corner of Roosevelt Avenue and Main Street	5.00	4.00	616	893	193	279	90%	100%	80%	1.00	D
S7/M7	Street stair at southwest corner of Roosevelt Avenue and Main Street	5.00	4.00	498	1,498	156	468	90%	80%	80%	1.44	E
S3	Street stair at southeast corner of Roosevelt Avenue and Main Street	5.00	4.00	250	614	78	192	90%	100%	80%	0.59	B
S5	Street stair at southeast corner of Roosevelt Avenue and Main Street	4.80	3.80	594	1,275	186	398	90%	80%	80%	1.42	E
M3/M5	Street stair at southeast corner of Roosevelt Avenue and Main Street	11.50	10.25	843	1,889	263	590	90%	90%	80%	0.74	C
M11	Street stair on south side of Roosevelt Avenue between Main Street and Union Street	10.00	8.75	73	69	23	22	90%	80%	75%	0.05	A
P11	Connecting stair between platform and R533 paid zone west	4.25	3.25	478	620	149	194	90%	80%	75%	1.01	D
P12	Connecting stair between platform and R533 paid zone west	4.25	3.25	1,088	986	340	308	90%	80%	75%	1.90	F
P15	Connecting stair between platform and R533 paid zone west	4.25	3.25	39	682	12	213	100%	80%	75%	0.61	B
P16	Connecting stair between platform and R533 paid zone west	4.25	3.25	124	868	39	271	90%	80%	75%	0.93	C
P3	Connecting stair between platform and R533 paid zone east	4.25	3.25	35	526	11	164	90%	80%	75%	0.53	B
P4	Connecting stair between platform and R533 paid zone east	4.25	3.25	26	811	8	253	100%	80%	75%	0.71	C
P5/P7	Connecting stair between platform and R533 paid zone east	4.25	3.25	349	539	109	168	90%	80%	75%	0.82	C
P6/P8	Connecting stair between platform and R533 paid zone east	4.25	3.25	635	758	198	237	90%	80%	75%	1.28	D

Table 4C-29. Adopted Toll Structure: Main Street- Flushing Station (No. 7 line) – Escalator Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E455	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	1364	0	426	1,050	0.54	B
E456	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	708	0	221	0	1,050	0.28	A
E457	Street escalator at south side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	1565	0	489	1,050	0.62	B

Table 4C-30. Adopted Toll Structure: Main Street- Flushing Station (No. 7 line) – Fare Array Area Analysis (PM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
Main Street and Roosevelt Avenue (R533-West)											
Two-Way Turnstiles	8	3,360	5,160	1,729	3,156	540	986	0.90	0.80	0.44	A
Main Street and Roosevelt Avenue (R533-East)											
Two-Way Turnstiles	8	3,360	5,160	1,051	2,633	328	823	0.90	0.80	0.33	A
Roosevelt Avenue between Main Street and Union Street (R534)											
Two-Way Turnstiles	9	3,780	5,805	781	2,998	244	937	0.90	0.75	0.31	A

Table 4C-31. Final EA (Scenario E): Level of Service Summary with and without Project Improvements

The two (2) vertical circulation elements in this table are modeled to meet CEQR thresholds for significant adverse effects under the most conservative tolling scenario.

ELEMENT	LOCATION	STAIR EFFECTIVE WIDTH / ESCALATOR TREAD WIDTH	PROJECT IMPROVEMENT	AM PEAK HOUR			PM PEAK HOUR		
				No Action v/c (LOS)	With Action v/c (LOS)	With Action With Improvements v/c (LOS)	No Action v/c (LOS)	With Action v/c (LOS)	With Action With Improvements v/c (LOS)
Court Square-23rd Street Station (E, M, G, and No. 7 lines)									
FLU P2/P4	Connecting stair between R508 paid zone and Manhattan-bound No. 7 line platform	6.25 feet	Add new 5-foot-wide platform stair on north end of Manhattan-bound No. 7 line platform	1.84 (F)	1.90 (F)	1.56 (E)	No Adverse Effects		
NEW FLU plat stair	New connecting stair between new fare control area and Manhattan-bound No. 7 line platform	4 feet	New platform stair on north end of Manhattan-bound No. 7 line platform	N/A	N/A	0.53 (B)	N/A	N/A	0.44 (A)
Main Street Flushing Station (No. 7 line)									
E456	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	40 inches	Raise escalator speed to 120 fpm	1.18 (D)	1.21 (D)	1.08 (D)	No Adverse Effects		

Table 4C-32. Adopted Toll Structure: Level of Service Summary with and without Project Improvements

The two (2) vertical circulation elements in this table are modeled to meet CEQR thresholds for significant adverse effects.

ELEMENT	LOCATION	STAIR EFFECTIVE WIDTH / ESCALATOR TREAD WIDTH	PROJECT IMPROVEMENT	AM PEAK HOUR			PM PEAK HOUR		
				No Action v/c (LOS)	With Action v/c (LOS)	With Action With Improvements v/c (LOS)	No Action v/c (LOS)	With Action v/c (LOS)	With Action With Improvements v/c (LOS)
Court Square-23rd Street Station (E, M, G, and No. 7 lines)									
FLU P2/P4	Connecting stair between R508 paid zone and Manhattan-bound No. 7 line platform	6.25 feet	Add new 5-foot-wide platform stair on north end of Manhattan-bound No. 7 line platform	1.84 (F)	1.90 (F)	1.56 (E)	No Adverse Effects		
NEW FLU plat stair	New connecting stair between new fare control area and Manhattan-bound No. 7 line platform	4 feet	New platform stair on north end of Manhattan-bound No. 7 line platform	N/A	N/A	0.53 (B)	N/A	N/A	0.43 (A)
Main Street Flushing Station (No. 7 line)									
E456	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	40 inches	Raise escalator speed to 120 fpm	1.18 (D)	1.21 (D)	1.08 (D)	No Adverse Effects		

## CENTRAL BUSINESS DISTRICT (CBD) TOLLING PROGRAM

# Appendix 10, Air Quality

2024

## PROJECT-LEVEL HOT-SPOT SCREENING

Table 1. Upper East Side Study Area – No-Action Alternative vs. Adopted Toll Structure Carbon Monoxide Screening

Intersection #	Intersection Name	LN LOS		LN Volume		LN Screen	
		NB	BD	NB	BD	LOS	10% Volume
1	E 60th Street & Queensboro Bridge Exit	0	0	437	371	Pass	NA
2	E 60th Street & 3rd Ave	C	C	1676	1251	Pass	NA
3	E 60th Street & York Ave	C	C	1402	1106	Pass	NA
4	E 59th Street & 2nd Ave	C	B	3476	1369	Pass	NA
5	E 60th Street & 2nd Ave	C	B	2939	1237	Pass	NA
6	E 60th Street & 1st Ave	B	B	1727	1485	Pass	NA
7	E 60th Street & Lexington Ave	C	C	1640	1079	Pass	NA
8a	E 60th Street & Park Ave NB	C	C	974	821	Pass	NA
8b	E 60th Street & Park Ave SB	B	B	1368	1191	Pass	NA
9	E 60th Street & Madison Ave	B	B	1374	1169	Pass	NA
10	E 62nd Street & Queensboro Bridge Exit	B	B	1880	2034	Pass	NA
11	E 60th Street & 5th Ave	C	B	1508	1100	Pass	NA
12	E 63rd Street & York Ave	C	C	2021	1646	Pass	NA
13	E 53rd Street & FDR Drive	0	0	523	446	Pass	NA
14	E 61st Street & 5th Ave	C	B	1160	793	Pass	NA
15	E 65th Street & 5th Ave	C	B	1680	1581	Pass	NA
16	E 66th Street & 5th Avenue	C	C	1529	1418	Pass	NA
17	E 79th Street & 5th Ave	C	C	1653	1540	Pass	NA
18	E 71st Street & York Ave	C	C	963	743	Pass	NA

Table 2. Upper East Side Study Area – No-Action Alternative vs. Adopted Toll Structure Particulate Matter Screening

Intersection #	Intersection Name	LN LOS		LN Increment			LN HDDV	LN Screen	
		NB	BD	MT	Bus	HT	Total	LOS	HDDT
1	E 60th Street & Queensboro Bridge Exit	0	0	-2	-1	0	-3	Pass	NA
2	E 60th Street & 3rd Ave	C	C	-15	-4	0	-19	Pass	NA
3	E 60th Street & York Ave	C	C	0	-4	0	-4	Pass	NA
4	E 59th Street & 2nd Ave	C	B	-55	-27	-14	-96	Pass	NA
5	E 60th Street & 2nd Ave	C	B	-46	-14	-13	-73	Pass	NA
6	E 60th Street & 1st Ave	B	B	-5	-2	0	-7	Pass	NA
7	E 60th Street & Lexington Ave	C	C	-8	-7	-1	-16	Pass	NA
8a	E 60th Street & Park Ave NB	C	C	-6	-7	0	-13	Pass	NA
8b	E 60th Street & Park Ave SB	B	B	-1	-1	0	-2	Pass	NA
9	E 60th Street & Madison Ave	B	B	-2	-4	0	-6	Pass	NA
10	E 62nd Street & Queensboro Bridge Exit	B	B	-1	0	0	-1	Pass	NA
11	E 60th Street & 5th Ave	C	B	-3	-8	-1	-12	Pass	NA
12	E 63rd Street & York Ave	C	C	-1	-1	0	-2	Pass	NA
13	E 53rd Street & FDR Drive	0	0	0	0	0	0	Pass	NA
14	E 61st Street & 5th Ave	C	B	-2	-7	-1	-10	Pass	NA
15	E 65th Street & 5th Ave	C	B	0	-3	0	-3	Pass	NA
16	E 66th Street & 5th Avenue	C	C	0	-2	0	-2	Pass	NA
17	E 79th Street & 5th Ave	C	C	0	-3	0	-3	Pass	NA
18	E 71st Street & York Ave	C	C	-2	-4	0	-6	Pass	NA

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Table 3. Long Island City Study Area - No-Action Alternative vs. Adopted Toll Structure Carbon Monoxide Screening

Intersection #	Intersection Name	AM LOS		AM Volume		AM Screen	
		NB	BD	NB	BD	LOS	10% Volume
1a	Pulaski Bridge / 11th Street & Jackson Avenue	E	E	2473	2446	Fail	Pass
1b	11th Street & 48TH Avenue	C	C	1305	1284	Pass	NA
2	50th Avenue @ Vernon Blvd	B	B	544	556	Pass	NA
3	Green Street & McGuinness Blvd	C	C	2487	2438	Pass	NA
4	McGuinness Blvd & Freeman Street	0	0	2723	2642	Pass	NA
5	21st Street & 49th Avenue	D	D	948	933	Fail	Pass
7	11th Street & Borden Avenue	0	0	1443	1383	Pass	NA
8a	Van Dam Street & QMT Expy	D	D	2344	2210	Fail	Pass
8b	Van Dam Street & Borden Avenue	E	E	1376	1293	Fail	Pass
9	Jackson Ave / Northern Blvd & Queens Plaza	C	C	2556	2328	Pass	NA
11a	Thomson Avenue & Dutch Kills Street	0		1681	1669	Pass	NA
11b	Thomson Avenue & Dutch Kills Street	0	0	2523	2390	Pass	NA
12	21st Street & Queens Plaza N	D	D	1998	1925	Fail	Pass

Table 4. Long Island City Study Area - No-Action Alternative vs. Adopted Toll Structure Particulate Matter Screening

Intersection #	Intersection Name	AM LOS		AM Increment			AM HDDV	AM Screen	
		NB	BD	MT	Bus	HT	Total	LOS	HDDT
1a	Pulaski Bridge / 11th Street & Jackson Avenue	E	E	0	0	0	0	Fail	Pass
1b	11th Street & 48th Avenue	C	C	0	0	0	0	Pass	NA
2	50th Avenue @ Vernon Blvd	B	B	1	-1	0	0	Pass	NA
3	Green Street & McGuinness Blvd	C	C	-2	-1	0	-3	Pass	NA
4	McGuinness Blvd & Freeman Street	0	0	-5	-1	0	-6	Pass	NA
5	21st Street & 49th Avenue	D	D	0	0	0	0	Fail	Pass
7	11th Street & Borden Avenue	0	0	0	0	0	0	Pass	NA
8a	Van Dam Street & QMT Expy	D	D	-9	-2	-1	-12	Fail	Pass
8b	Van Dam Street & Borden Avenue	E	E	-8	-1	0	-9	Fail	Pass
9	Jackson Ave / Northern Blvd & Queens Plaza	C	C	0	0	0	0	Pass	NA
11a	Thomson Avenue & Dutch Kills Street	0		-1	-1	0	-2	Pass	NA
11b	Thomson Avenue & Dutch Kills Street	0	0	-1	-1	0	-2	Pass	NA
12	21st Street & Queens Plaza N	D	D	-1	-1	0	-2	Fail	Pass



Table 5. Lower Manhattan Study Area – No-Action Alternative vs. Adopted Toll Structure Carbon Monoxide Screening

Intersection #	Intersection Name	AM LOS		AM Volume		AM Screen		MD LOS		MD Volume		MD Screen		PM LOS		PM Volume		PM Screen	
		NB	BD	NB	BD	LOS	10% Volume	NB	BD	NB	BD	LOS	10% Volume	NB	BD	NB	BD	LOS	10% Volume
1	Trinity Place & Edgar Street	B	B	117	77	Pass	NA	C	C	364	329	Pass	NA	C	C	144	136	Pass	NA
2	Trinity Place & Rector Street	C	C	251	211	Pass	NA	C	D	508	478	Fail	Pass	C	C	264	242	Pass	NA
3a	HCT Entrance/Exit & West Street	C	C	4216	4165	Pass	NA	B	B	4055	3953	Pass	NA	A	A	3511	3290	Pass	NA
3b	HCT Exit & West Street & West Thams Street	C	C	3339	3268	Pass	NA	C	C	3265	3158	Pass	NA	C	C	2373	2245	Pass	NA
4	Chambers Street & Centre Street	C	C	1588	1486	Pass	NA	C	C	1409	1265	Pass	NA	E	D	1873	1588	Fail	Pass
5a	Canal Street & Hudson Street/Holland Tunnel On-Ramp	C	C	2586	2319	Pass	NA	D	C	1988	1600	Pass	NA	C	C	1533	1399	Pass	NA
5b	Canal Street & Holland Tunnel On-Ramp	E	E	2013	1890	Fail	Pass	C	B	1319	1165	Pass	NA	F	F	1889	1832	Fail	Pass
7a	Canal Street S & West Street	D	D	5849	5716	Fail	Pass	C	C	4638	4425	Pass	NA	D	D	5146	4852	Fail	Pass
9	West Street & Albany Street	C	C	4436	4395	Pass	NA	C	C	4149	4035	Pass	NA	C	C	4049	3852	Pass	NA
10	West Street & Vesey Street	C	C	4668	4598	Pass	NA	C	C	4562	4422	Pass	NA	C	C	4373	4171	Pass	NA
11	West Street & Chambers Street	D	C	5053	4930	Pass	NA	C	C	4845	4628	Pass	NA	D	C	4840	4553	Pass	NA
14	Canal Street/Manhattan Bridge & Bowery	D	C	8718	8119	Pass	NA	C	B	2774	2065	Pass	NA	C	B	3276	2331	Pass	NA
15	Manhattan Bridge & Bowery	C	B	1421	1116	Pass	NA	B	B	1162	801	Pass	NA	B	B	1395	851	Pass	NA
18	6th Avenue & Watts Street	B	B	1884	1716	Pass	NA	B	B	1784	1563	Pass	NA	C	C	997	810	Pass	NA
19	Canal Street & 6th Avenue/Laight Street	E	D	3634	3394	Fail	Pass	C	C	2555	2266	Pass	NA	C	C	2932	2584	Pass	NA

Table 6. Lower Manhattan Study Area – No-Action Alternative vs. Adopted Toll Structure Particulate Matter Screening

Intersection #	Intersection Name	Approach	AM LOS		AM Increment			AM HDDV	AM Screen		MD LOS		MD Increment			MD HDDV	MD Screen		PM LOS		PM Increment			PM HDDV	PM Screen	
			NB	BD	MT	Bus	HT	Total	LOS	HDDT	NB	BD	MT	Bus	HT	Total	LOS	HDDT	NB	BD	MT	Bus	HT	Total	LOS	HDDT
1	Trinity Place & Edgar Street	Intersection	B	B	-2	-21	0	-23	Pass	NA	C	C	-2	-8	0	-10	Pass	NA	C	C	0	-4	0	-4	Pass	NA
2	Trinity Place & Rector Street	Intersection	C	C	-3	-18	0	-21	Pass	NA	C	D	-2	-5	0	-7	Fail	Pass	C	C	-2	-4	0	-6	Pass	NA
3a	HCT Entrance/Exit & West Street	Intersection	C	C	-2	3	0	1	Pass	NA	B	B	-5	-1	0	-6	Pass	NA	A	A	-3	-13	0	-16	Pass	NA
3b	HCT Exit & West Street & West Thames Street	Intersection	C	C	-2	-2	0	-4	Pass	NA	C	C	-4	-3	0	-7	Pass	NA	C	C	-2	-4	0	-6	Pass	NA
4	Chambers Street & Centre Street	Intersection	C	C	-17	-34	0	-51	Pass	NA	C	C	-3	-32	0	-35	Pass	NA	E	D	-46	-78	0	-124	Fail	Pass
5a	Canal Street & Hudson Street/Holland Tunnel On-Ramp	Intersection	C	C	-18	-13	-1	-32	Pass	NA	D	C	-31	-4	-5	-40	Pass	NA	C	C	-4	-1	0	-5	Pass	NA
5b	Canal Street & Holland Tunnel On-Ramp	Intersection	E	E	-14	-10	-3	-27	Fail	Pass	C	B	-20	-5	-7	-32	Pass	NA	F	F	-2	-1	0	-3	Fail	Pass
7a	Canal Street S & West Street	Intersection	D	D	-7	-6	0	-13	Fail	Pass	C	C	-8	-7	-1	-16	Pass	NA	D	D	-7	-7	0	-14	Fail	Pass
9	West Street & Albany Street	Intersection	C	C	-2	-1	0	-3	Pass	NA	C	C	6	-6	0	0	Pass	NA	C	C	-2	-6	0	-8	Pass	NA
10	West Street & Vesey Street	Intersection	C	C	-3	-3	0	-6	Pass	NA	C	C	-4	-4	0	-8	Pass	NA	C	C	-3	-6	0	-9	Pass	NA
11	West Street & Chambers Street	Intersection	D	C	-4	-4	0	-8	Pass	NA	C	C	-7	-5	0	-12	Pass	NA	D	C	-4	-9	0	-13	Pass	NA
14	Canal Street/Manhattan Bridge & Bowery	Intersection	D	C	-57	-19	-4	-80	Pass	NA	C	B	-84	-24	-4	-112	Pass	NA	C	B	-43	-29	0	-72	Pass	NA
15	Manhattan Bridge & Bowery	Intersection	C	B	0	0	0	0	Pass	NA	B	B	0	0	0	0	Pass	NA	B	B	0	0	0	0	Pass	NA
18	6th Avenue & Watts Street	Intersection	B	B	-8	-7	0	-15	Pass	NA	B	B	-8	-5	-1	-14	Pass	NA	C	C	-3	-9	0	-12	Pass	NA
19	Canal Street & 6th Avenue/Laight Street	Intersection	E	D	-24	-9	-1	-34	Fail	Pass	C	C	-32	-3	-2	-37	Pass	NA	C	C	-16	-9	-1	-26	Pass	NA

Table 7. Queens-Midtown Tunnel Study Area– No-Action Alternative vs. Adopted Toll Structure Carbon Monoxide Screening

Intersection #	Intersection Name	MD LOS		MD Volume		MD Screen		LN LOS		LN Volume		LN Screen	
		NB	BD	NB	BD	LOS	10%	NB	BD	NB	BD	LOS	10%
1	E 37th Street & 3rd Avenue	C	C	1521	1448	Pass	NA	C	C	1799	1716	Pass	NA
2	E 36th Street & 2nd Avenue	F	E	2640	2445	Fail	Pass	C	B	2581	2402	Pass	NA
3	E 34th Street & 3rd Avenue	D	C	2247	2046	Pass	NA	C	C	2410	2201	Pass	NA
4	E 35th Street & 3rd Avenue	B	B	1734	1578	Pass	NA	B	A	1878	1705	Pass	NA
5	E 34th Street & 2nd Avenue	C	C	2573	2480	Pass	NA	C	B	2769	2609	Pass	NA
6	E 35th Street & 2nd Avenue	B	B	1767	1729	Pass	NA	B	B	2042	1939	Pass	NA

Table 8. Queens-Midtown Tunnel Study Area – No-Action Alternative vs. Adopted Toll Structure Particulate Matter Screening

Intersection #	Intersection Name	MD LOS		MD Increment			MD HDDV	MD Screen		LN LOS		LN Increment			LN HDDV	LN Screen	
		NB	BD	MT	Bus	HT	Total	LOS	HDDT	NB	BD	MT	Bus	HT	Total	LOS	HDDT
1	E 37th Street & 3rd Avenue	C	C	-6	-2	0	-8	Pass	NA	C	C	-1	-1	0	-2	Pass	NA
2	E 36th Street & 2nd Avenue	F	E	-14	-4	0	-18	Fail	Pass	C	B	-3	-2	0	-5	Pass	NA
3	E 34th Street & 3rd Avenue	D	C	-13	-7	0	-20	Pass	NA	C	C	-3	-4	0	-7	Pass	NA
4	E 35th Street & 3rd Avenue	B	B	-8	-2	0	-10	Pass	NA	B	A	-1	-1	0	-2	Pass	NA
5	E 34th Street & 2nd Avenue	C	C	-6	-2	0	-8	Pass	NA	C	B	-1	-2	0	-3	Pass	NA
6	E 35th Street & 2nd Avenue	B	B	-3	-1	0	-4	Pass	NA	B	B	-1	-1	0	-2	Pass	NA

Table 9. Red Hook Study Area – No-Action Alternative vs. Adopted Toll Structure Carbon Monoxide Screening

Intersection #	Intersection Name	AM LOS		AM Volume		AM Screen		MD LOS		MD Volume		MD Screen		LN LOS		LN Volume		LN Screen	
		NB	BD	NB	BD	LOS	10% Volume	NB	BD	NB	BD	LOS	10% Volume	NB	BD	NB	BD	LOS	10% Volume
1	Hamilton Avenue, Clinton Street & West 9 <sup>th</sup> Street	A	B	5490	5516	Pass	NA	B	B	5387	5329	Pass	NA	A	A	3035	2973	Pass	NA
2	Hamilton Avenue NB & West 9 <sup>th</sup> Street	B	B	2324	2299	Pass	NA	B	B	2099	2042	Pass	NA	B	A	1110	1026	Pass	NA

Table 10. Red Hook Study Area – No-Action Alternative vs. Adopted Toll Structure Particulate Matter Screening

Intersection #	Intersection Name	AM LOS		AM Increment			AM HDDV	AM Screen		MD LOS		MD Increment			MD HDDV	MD Screen		LN LOS		LN Increment			LN HDDV	LN Screen	
		NB	BD	MT	Bus	HT	Total	LOS	HDDT	NB	BD	MT	Bus	HT	Total	LOS	HDDT	NB	BD	MT	Bus	HT	Total	LOS	HDDT
1	Hamilton Avenue, Clinton Street & West 9 <sup>th</sup> Street	A	B	3	2	1	6	Pass	NA	B	B	-1	0	0	-1	Pass	NA	A	A	0	1	0	1	Pass	NA
2	Hamilton Avenue NB & West 9 <sup>th</sup> Street	B	B	-2	0	-1	-3	Pass	NA	B	B	-5	0	0	-5	Pass	NA	B	A	-1	-1	-1	-3	Pass	NA

Table 11. Robert F. Kennedy Bridge Study Area - No-Action Alternative vs. Adopted Toll Structure Carbon Monoxide Screening

Intersection #	Intersection Name	AM LOS		AM Volume		AM Screen		PM LOS		PM Volume		PM Screen		LN LOS		LN Volume		LN Screen	
		NB	BD	NB	BD	LOS	10% Volume	NB	BD	NB	BD	LOS	10% Volume	NB	BD	NB	BD	LOS	10% Volume
1	126th Street and 2nd Avenue	C	C	2084	2018	Pass	NA	C	C	2600	2441	Pass	NA	B	B	1310	1282	Pass	NA
2	125th Street and 2nd Avenue	C	D	2587	2610	Fail	Pass	C	E	2988	3060	Fail	Pass	C	C	1576	1693	Pass	NA
11	E 134th Street & St. Ann's Avenue	C	C	775	775	Pass	NA	C	C	665	665	Pass	NA	C	C	490	490	Pass	NA
22	St Ann's Ave and Bruckner Blvd	C	C	2415	2415	Pass	NA	C	C	2320	2320	Pass	NA	C	C	2265	2265	Pass	NA
17	31st St & Astoria Blvd	C	C	1243	1219	Pass	NA	E	D	1199	1155	Fail	Pass	B	B	954	832	Pass	NA
24	Hoyt N & 31st St	C	C	3076	3008	Pass	NA	B	B	2326	2186	Pass	NA	C	C	1956	1769	Pass	NA
3	Hoyt S & 31st St	C	D	1766	1773	Fail	Pass	C	C	1860	1838	Pass	NA	C	C	1594	1561	Pass	NA

Table 12. Robert F. Kennedy Bridge Study Area - No-Action Alternative vs. Adopted Toll Structure Particulate Matter Screening

Intersection #	Intersection Name	AM LOS		AM Increment			AM HDDV	AM Screen		PM LOS		PM Increment			PM HDDV	PM Screen		LN LOS		LN Increment			LN HDDV	LN Screen	
		NB	BD	MT	Bus	HT	Total	LOS	HDDT	NB	BD	MT	Bus	HT	Total	LOS	HDDT	NB	BD	MT	Bus	HT	Total	LOS	HDDT
1	126th Street and 2nd Avenue	C	C	-6	-3	0	-9	Pass	NA	C	C	-3	-7	0	-10	Pass	NA	B	B	-1	-1	0	-2	Pass	NA
2	125th Street and 2nd Avenue	C	D	-11	-2	-2	-15	Fail	Pass	C	E	-5	-10	0	-15	Fail	Pass	C	C	2	3	0	5	Pass	NA
11	E 134th Street & St. Ann's Avenue	C	C	0	0	0	0	Pass	NA	C	C	0	0	0	0	Pass	NA	C	C	0	0	0	0	Pass	NA
22	St Ann's Ave and Bruckner Blvd	C	C	0	0	0	0	Pass	NA	C	C	0	0	0	0	Pass	NA	C	C	0	0	0	0	Pass	NA
17	31st St & Astoria Blvd	C	C	0	0	0	0	Pass	NA	E	D	-1	0	0	-1	Fail	Pass	B	B	-1	1	0	0	Pass	NA
24	Hoyt N & 31st St	C	C	-3	-2	-2	-7	Pass	NA	B	B	-4	-2	0	-6	Pass	NA	C	C	-2	0	0	-2	Pass	NA
3	Hoyt S & 31st St	C	D	3	0	1	4	Fail	Pass	C	C	2	1	0	3	Pass	NA	C	C	0	0	1	1	Pass	NA

Table 13. Downtown Brooklyn Study Area - No-Action Alternative vs. Adopted Toll Structure Carbon Monoxide Screening

Intersection #	Intersection Name	Approach	AM LOS		AM Volume		AM Screen		LN LOS		LN Volume		LN Screen	
			NB	BD	NB	BD	LOS	10% Volume	NB	BD	NB	BD	LOS	10% Volume
1	Flatbush Avenue and Tillary Street	Intersection	F	F	4887	4446	Fail	Pass	D	D	4383	3811	Fail	Pass
2	Adam Street and Tillary Street	Intersection	D	D	2997	2997	Fail	Pass	C	C	2109	2152	Pass	NA
3	Old Fulton Street and Vine Street	Intersection	D	D	2805	1971	Fail	Pass	C	C	2062	1686	Pass	NA

Table 14. Downtown Brooklyn Study Area - No-Action Alternative vs. Adopted Toll Structure Particulate Matter Screening

Intersection #	Intersection Name	AM LOS		AM Increment			AM HDDV	AM Screen		LN LOS		LN Increment			LN HDDV	LN Screen	
		NB	BD	MT	Bus	HT	Total	LOS	HDDT	NB	BD	MT	Bus	HT	Total	LOS	HDDT
1	Flatbush Avenue and Tillary Street	F	F	-72	-12	-13	-97	Fail	Pass	D	D	-6	-8	-1	-15	Fail	Pass
2	Adam Street and Tillary Street	D	D	-1	-1	0	-2	Fail	Pass	C	C	-1	-2	0	-3	Pass	NA
3	Old Fulton Street and Vine Street	D	D	-5	-9	-1	-15	Fail	Pass	C	C	-2	-6	0	-8	Pass	NA

Table 15. Little Dominican Republic Study Area - No-Action Alternative vs. Adopted Toll Structure Carbon Monoxide Screening

Intersection #	Intersection Name	AM LOS		AM Volume		AM Screen		MD LOS		MD Volume		MD Screen		PM LOS		PM Volume		PM Screen	
		NB	BD	NB	BD	LOS	10% Volume	NB	BD	NB	BD	LOS	10% Volume	NB	BD	NB	BD	LOS	10% Volume
1	W 179th St & Broadway	C	C	813	823	Pass	Pass	C	C	1081	1142	Pass	Pass	C	C	1117	1144	Pass	Pass

Table 16. Little Dominican Republic Study Area - No-Action Alternative vs. Adopted Toll Structure Particulate Matter Screening

Intersection #	Intersection Name	AM LOS		AM Increment			AM HDDV	AM Screen		MD LOS		MD Increment			MD HDDV	MD Screen		PM LOS		PM Increment			PM HDDV	PM Screen	
		NB	BD	MT	Bus	HT	Total	LOS	HDDT	NB	BD	MT	Bus	HT	Total	LOS	HDDT	NB	BD	MT	Bus	HT	Total	LOS	HDDT
1	W 179th St & Broadway	C	C	17	82	0	99	Pass	NA	C	C	0	0	0	0	Pass	NA	C	C	0	0	0	0	Pass	NA

Table 17. Lower East Side Study Area- No-Action Alternative vs. Adopted Toll Structure Screening

Intersection #	Intersection Name	AM LOS		AM Volume		AM Screen		MD LOS		MD Volume		MD Screen		PM LOS		PM Volume		PM Screen	
		NB	BD	NB	BD	LOS	10% Volume	NB	BD	NB	BD	LOS	10% Volume	NB	BD	NB	BD	LOS	10% Volume
1	Park Row/Chatham Square & Worth/Oliver St & Mott St	C	C	1076	999	Pass	Pass	D	C	1050	862	Pass	Pass	D	C	1146	930	Pass	Pass
2	Chatham Square & E Broadway	C	C	791	714	Pass	Pass	C	C	885	697	Pass	Pass	D	C	1026	810	Pass	Pass
3	Chatham Square/Bowery & Divison St	B	C	816	739	Pass	Pass	B	B	845	657	Pass	Pass	B	C	1096	880	Pass	Pass

Table 18. Lower East Side Study Area- No-Action Alternative vs. Adopted Toll Structure Particulate Matter Screening

Intersection #	Intersection Name	AM LOS		AM Increment			AM HDDV	AM Screen		MD LOS		MD Increment			MD HDDV	MD Screen		PM LOS		PM Increment			PM HDDV	PM Screen	
		NB	BD	MT	Bus	HT	Total	LOS	HDDT	NB	BD	MT	Bus	HT	Total	LOS	HDDT	NB	BD	MT	Bus	HT	Total	LOS	HDDT
1	Park Row/Chatham Square & Worth/Oliver St & Mott St	C	C	-6	-3	0	-9	Pass	NA	D	C	-17	-7	0	-24	Pass	NA	D	C	-18	-8	0	-26	Pass	NA
2	Chatham Square & E Broadway	C	C	-9	-4	0	-13	Pass	NA	C	C	-21	-9	0	-30	Pass	NA	D	C	-23	-11	0	-34	Pass	NA
3	Chatham Square/Bowery & Divison St	B	C	-11	-4	0	-15	Pass	NA	B	B	-24	-7	0	-31	Pass	NA	B	C	-28	-10	0	-38	Pass	NA

Table 19. Maximum Truck Changes on Highway Links with Project – Adopted Toll Structure

Worst-Case Scenario	County	link #	Roadway	EJ Community	Maximum Change in Trucks	AADT - No Action	AADT - Scenario	Trucks - No Action	Trucks - Scenario	% Trucks - No Action	% Trucks - Scenario
10J	Queens	64851	TRIBOROUGH BRIDGE	yes	1,290	72,148	78,816	7,467	8,756	10%	11%
10J	New York	220571	TRIBOROUGH BRIDGE (SOUTH) - N	yes	1,290	72,057	78,725	7,467	8,756	10%	11%
10J	New York	64925	TRIBOROUGH BRIDGE	yes	1,218	42,009	45,018	6,554	7,772	16%	17%
10J	New York	64926	I 278	yes	1,218	42,009	45,018	6,554	7,772	16%	17%
10J	New York	90365	TRIBOROUGH BRIDGE	yes	1,218	42,009	45,018	6,554	7,772	16%	17%
10J	Bronx	64930	TRIBOROUGH BRIDGE (NORTH) - N	yes	1,216	45,875	48,358	6,711	7,927	15%	16%
10J	New York	64931	I 278	yes	1,216	45,875	48,358	6,711	7,927	15%	16%
10J	Bronx	64940	TRIBORO BR	yes	1,216	45,875	48,358	6,711	7,927	15%	16%
10J	Queens	64831	TRIBOROUGH BRIDGE	yes	1,144	67,666	81,271	8,044	9,188	12%	11%
10J	New York	64916	TRIBOROUGH BRIDGE (SOUTH) - S	yes	1,144	67,666	81,271	8,044	9,188	12%	11%
10J	Queens	220946	GRAND CENTRAL PKY	yes	918	55,367	57,646	5,005	5,923	9%	10%
10J	Bronx	64944	RAMP FROM TRIBORO	yes	888	21,072	23,978	3,765	4,653	18%	19%
10J	Queens	64878	GRAND CENTRAL PKY	yes	883	78,250	79,959	5,703	6,586	7%	8%
10J	Queens	64879	BROOKLYN QUEENS EXPY	yes	875	19,212	20,314	4,136	5,011	22%	25%
10J	Bronx	64945	MAJOR DEEGRAN EXPWY	yes	862	67,416	68,266	5,601	6,463	8%	9%
10J	Bronx	64953	I 87	yes	862	67,416	68,266	5,601	6,463	8%	9%



Table 20. Maximum Average Annual Daily Traffic (AADT) on Highway Links with Project – Adopted Toll Structure

Scenario	County	link #	Roadway	EJ Community	AADT - No Action	AADT - Scenario	Trucks - No Action	Trucks - Scenario	Change in Trucks	% Trucks - No Action	% Trucks - Scenario
T10J	Bergen	268133	I-95	Yes	124,642	129,962	18,019	18,428	409	14.5%	14.2%
T10J	Queens	64554	VAN WYCK EXPY	Yes	128,793	126,920	5,664	5,415	-249	4.4%	4.3%
T10J	Bergen	268077	I-95	Yes	120,803	126,308	17,101	17,543	441	14.2%	13.9%
T10J	Bergen	268116	I-95	Yes	120,803	126,308	17,101	17,543	441	14.2%	13.9%
T10J	Bergen	268128	I-95	Yes	120,803	126,308	17,101	17,543	441	14.2%	13.9%
T10J	Queens	64564	VAN WYCK EXPY	Yes	123,598	122,388	4,731	4,923	192	3.8%	4.0%
T10J	Bergen	268131	I-95	Yes	116,685	121,706	16,114	16,204	90	13.8%	13.3%
T10J	Queens	63972	VAN WYCK EXPY	Yes	119,688	119,405	4,081	4,100	19	3.4%	3.4%
T10J	Bergen	265316	SR 4	Yes	117,908	117,481	6,034	6,021	-13	5.1%	5.1%
T10J	Queens	64267	LONG ISLAND EXPY	Yes	119,833	117,048	8,426	8,244	-181	7.0%	7.0%
T10J	Bergen	266111	SR 4	Yes	117,502	116,646	7,057	7,064	7	6.0%	6.1%
T10J	Queens	64289	LONG ISLAND EXPY	Yes	117,103	115,616	6,571	6,511	-60	5.6%	5.6%
T10J	Queens	63969	VAN WYCK EXPY	Yes	116,087	115,223	4,975	5,110	136	4.3%	4.4%
T10J	New York	62217	CROSS BRONX EXP. BRIDGE - WB	Yes	109,815	112,166	18,166	18,632	466	16.5%	16.6%
T10J	Queens	64441	LONG ISLAND EXPY	Yes	113,419	112,000	7,434	7,171	-263	6.6%	6.4%
T10J	New York	62285	I 95	Yes	109,469	111,820	18,166	18,632	466	16.6%	16.7%
T10J	Bergen	263218	I-95 Bergen-Passaic Expwy	Yes	104,710	111,566	13,548	13,985	438	12.9%	12.5%

## ANALYSIS RESULTS (PM HOT SPOT AT GEORGE WASHINGTON BRIDGE)

Table 21 - Predicted 24-hour PM<sub>10</sub> Design Value Concentrations

SITE	ALTERNATIVE	BACKGROUND CONCENTRATION (µG/M <sup>3</sup> )	MODELED CONCENTRATION (µG/M <sup>3</sup> )	TOTAL CONCENTRATION* (µG/M <sup>3</sup> )	NAAQS (µg/m <sup>3</sup> )
I-95 west of the GWB	No Build	44	44	88	150
	Adopted Toll Structure		45	89	

\* Total concentrations = modeled results + 24-hour PM<sub>10</sub> background  
µg/m<sup>3</sup> = micrograms per cubic meter

Table 22 - Predicted 24-hour PM<sub>2.5</sub> Design Value Concentrations

SITE	ALTERNATIVE	BACKGROUND CONCENTRATION (µG/M <sup>3</sup> )	MODELED CONCENTRATION (µG/M <sup>3</sup> )	TOTAL CONCENTRATION* (µG/M <sup>3</sup> )	NAAQS (µg/m <sup>3</sup> )
I-95 West of the GWB	No Build	22.0	5.8	27.8	35.0
	Adopted Toll Structure		6.0	28.0	

\* Total concentrations = modeled results + 24-hour PM<sub>2.5</sub> background  
µg/m<sup>3</sup> = micrograms per cubic meter

Table 23 - Predicted Annual PM<sub>2.5</sub> Design Value Concentrations

SITE	ALTERNATIVE	BACKGROUND CONCENTRATION (µG/M <sup>3</sup> )	MODELED CONCENTRATION (µG/M <sup>3</sup> )	TOTAL CONCENTRATION* (µG/M <sup>3</sup> )	NAAQS (µg/m <sup>3</sup> )
I-95 West of the GWB	No Build	9.0	1.8	10.8	12.0
	Adopted Toll Structure		1.9	10.9	

\* Total concentrations = modeled results + Annual PM<sub>2.5</sub> background  
µg/m<sup>3</sup> = micrograms per cubic meter

Figure 1 – AERMOD Model Screenshot, I-95 west of GWB

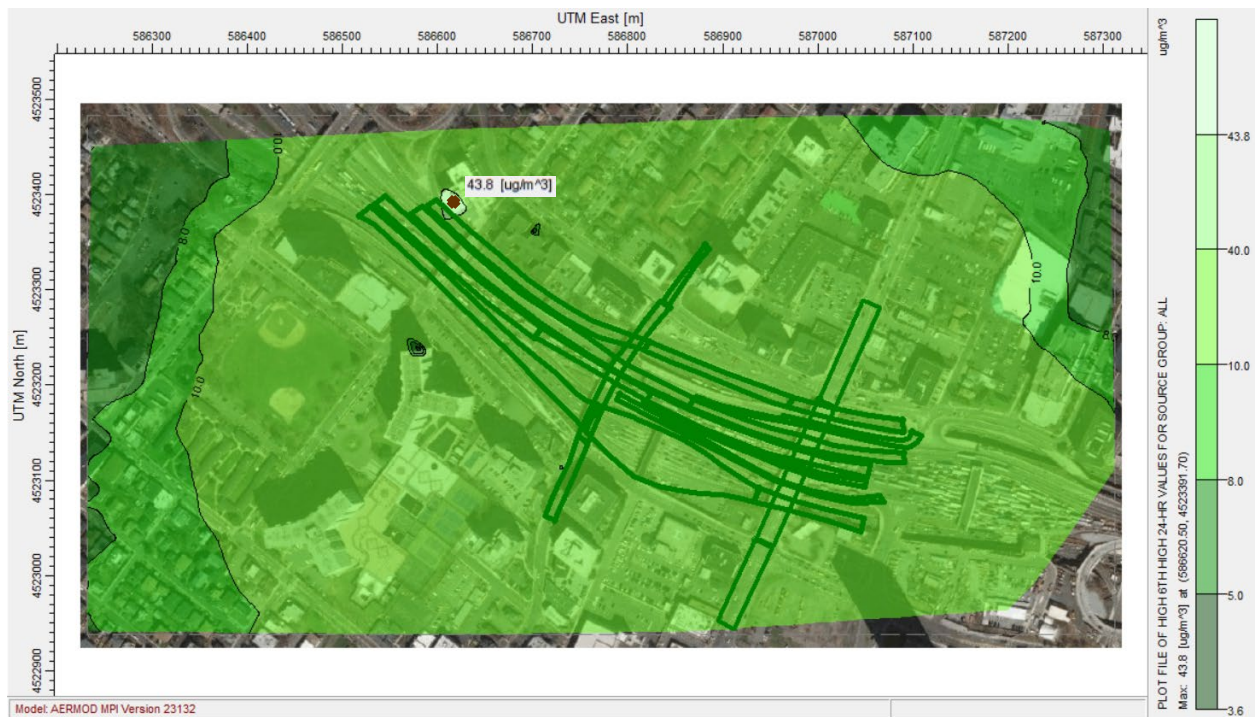
Figure 2 – 24-Hour PM<sub>10</sub> No Action Contours ( $\mu\text{g}/\text{m}^3$ ), I-95 west of GWB



Figure 3 – 24-Hour PM<sub>10</sub> Adopted Toll Structure- Contours ( $\mu\text{g}/\text{m}^3$ ), I-95 west of GWB

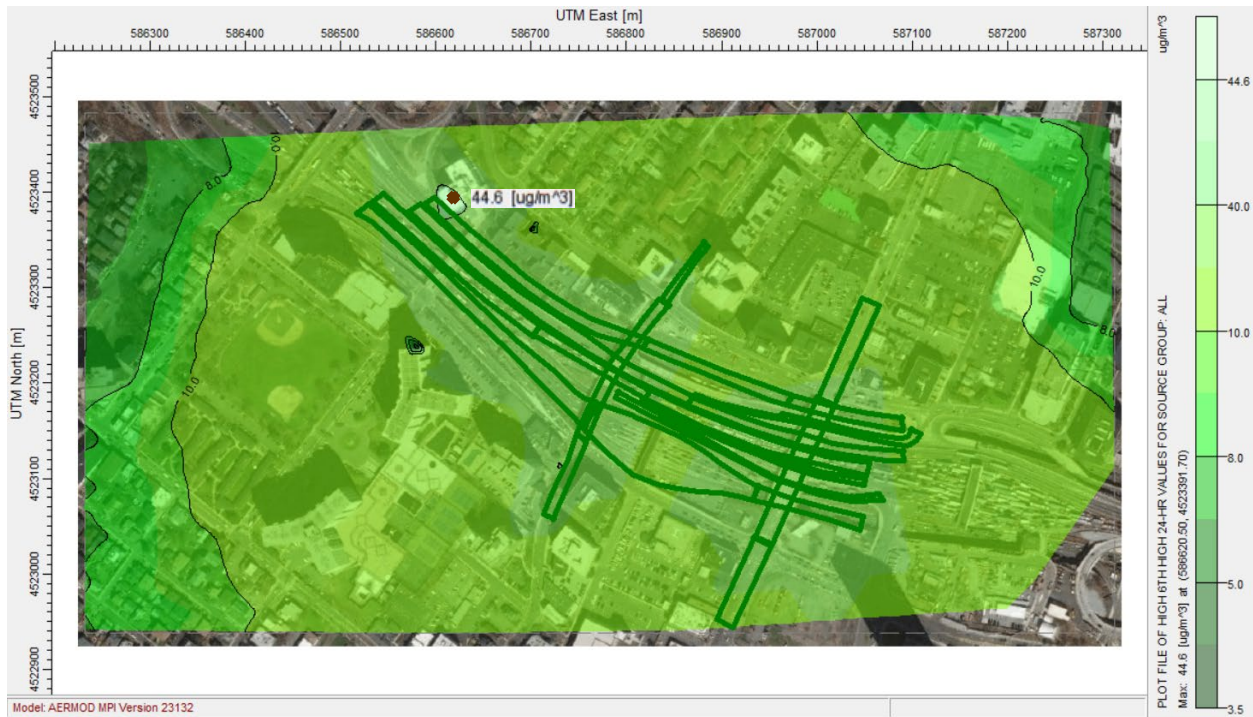


Figure 4 – 24-Hour PM<sub>2.5</sub> No Action Contours ( $\mu\text{g}/\text{m}^3$ ), I-95 west of GWB





Figure 5 – 24-Hour PM<sub>2.5</sub> Adopted Toll Structure Contours ( $\mu\text{g}/\text{m}^3$ ), I-95 west of GWB

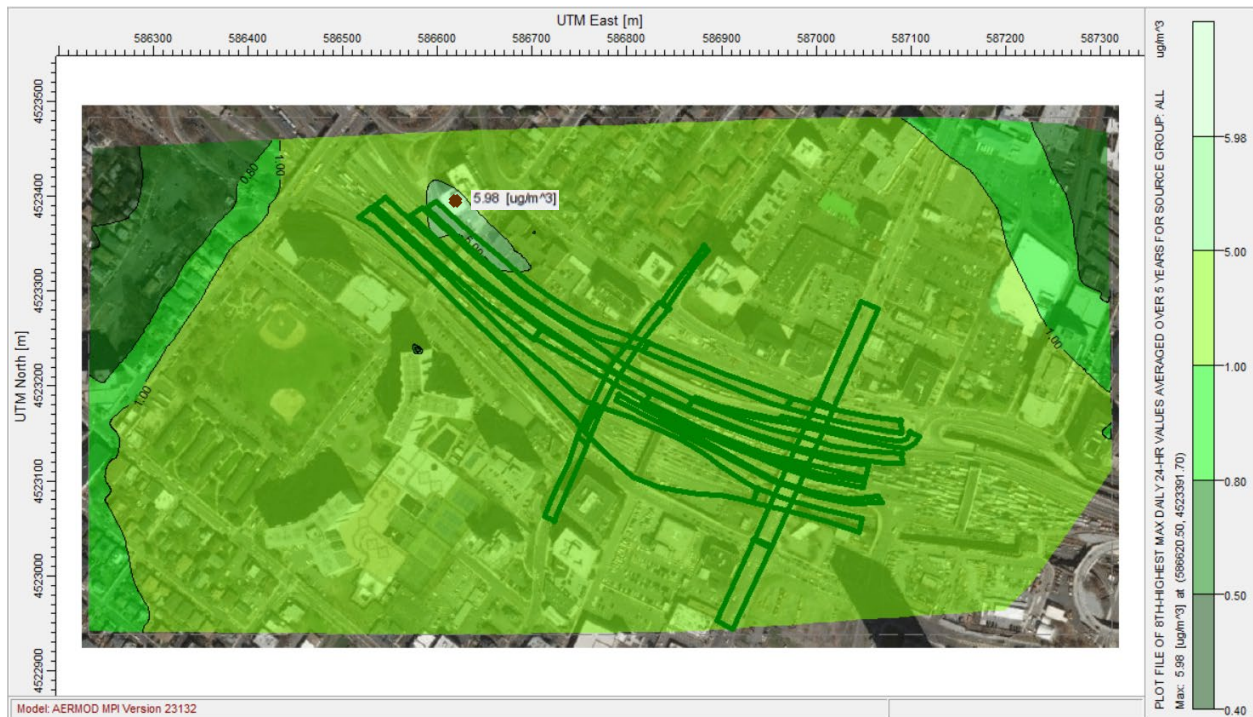


Figure 6 – Annual PM<sub>2.5</sub> No Action Contours ( $\mu\text{g}/\text{m}^3$ ), I-95 west of GWB

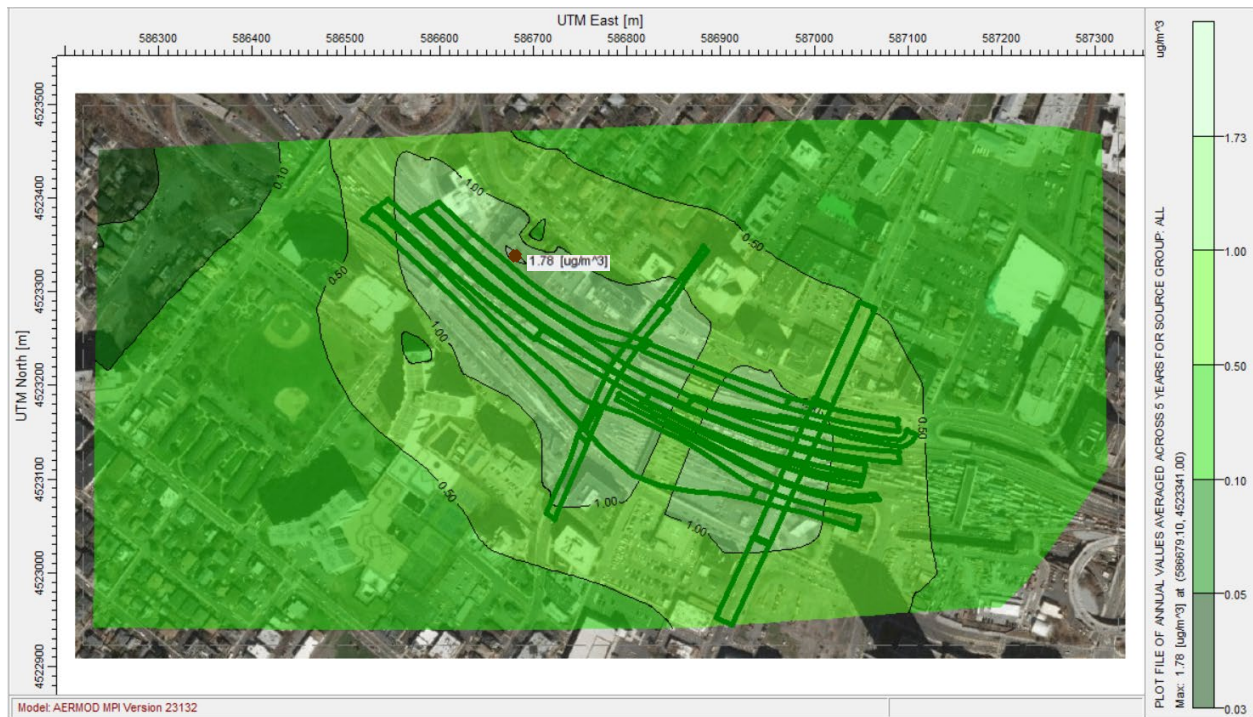
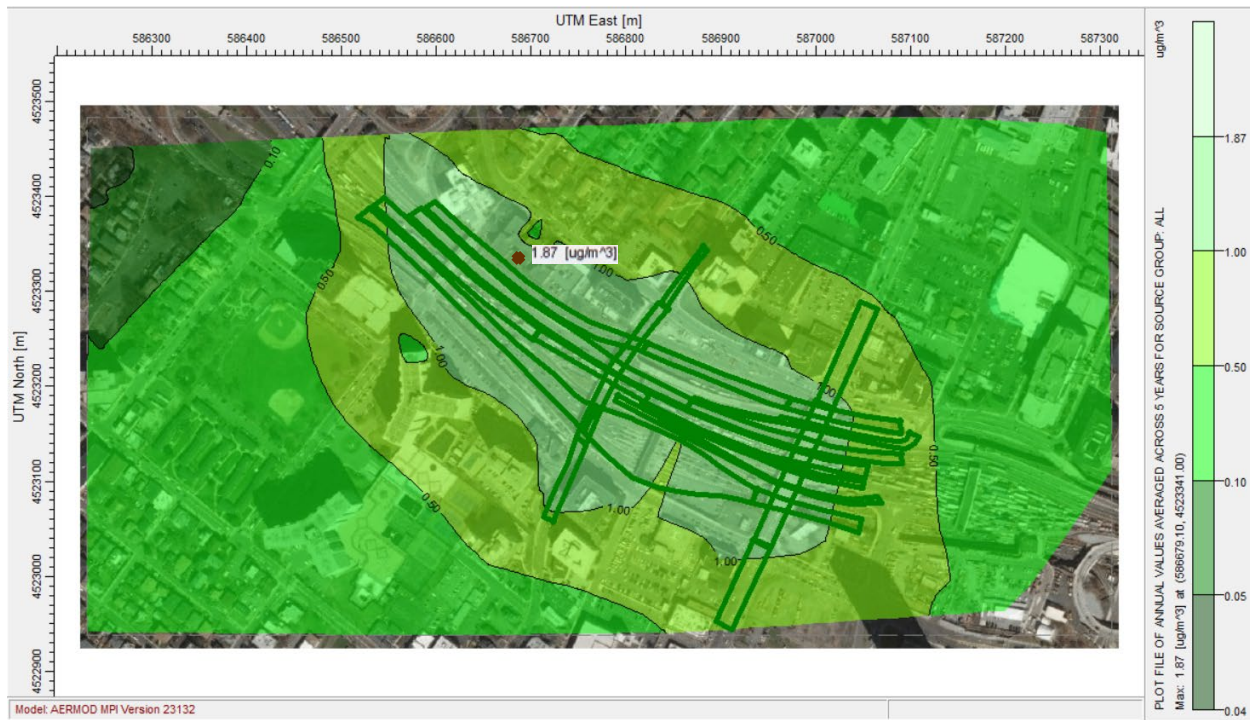


Figure 7 – Annual PM<sub>2.5</sub> Adopted Toll Structure Contours ( $\mu\text{g}/\text{m}^3$ ), I-95 west of GWB

## CENTRAL BUSINESS DISTRICT (CBD) TOLLING PROGRAM

# Appendix 12, Noise

2024

## LOCAL STREET NOISE ASSESSMENT

Table 1. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Downtown Brooklyn Study Area – With Action Peak Hour

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		LN	
						PCE	DW PCE	PCE	DW PCE
1	Flatbush Avenue and Tillary Street	NB	NBL	L	L	0.0	-0.6	0.0	-0.7
			NBT	T	T	-0.9		-1.7	
			NBR	R	R	0.0		-0.1	
		SB	SBT	T	T	-0.6	-0.6	-0.8	-0.7
			SBR	R	R	-0.6		-0.8	
		EB	EBL	L	L	-0.9	-0.1	-1.2	-0.2
			EBT	T	T	0.1		0.1	
			EBR	R	R	0.0		0.2	
		WB	WBL	L	L	-0.1	-0.6	-0.1	-0.6
			WBT	T	T	0.0		-0.1	
			WBR	R	R	-1.0		-2.1	



Table 1. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Downtown Brooklyn Study Area – With Action Peak Hour (Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		LN	
						PCE	DW PCE	PCE	DW PCE
2	Adams Street and Tillary Street	NB	NBL	L	L	0.0	-0.1	0.0	-0.4
			NBT	T	T	0.0		-0.3	
			NBR	T	R	0.0		0.0	
			NBR2	R	R2	-0.2		-0.9	
		SB	SBL	L	L	0.1	0.1	0.6	0.6
			SBT	T	T	0.1		0.6	
			SBR	R	R	0.0		0.0	
		EB	EBL	L	L	0.0	-0.1	0.0	-0.3
			EBT	T	T	-0.2		-1.1	
			EBR	R	R	0.0		0.0	
		WB	WBL	L	L	0.0	-0.1	-0.1	-0.2
			WBT	T	T	0.0		-0.1	
			WBR	R	R	0.0		0.0	
			WBR2	R	R2	-1.6		-1.9	
3	Old Fulton Street and Vine Street	NB	NBL	L	L	0.0	0.0	0.3	0.0
			NBT	T	T	0.0		0.2	
		SB	SBT	T	T	-0.1	-0.1	-0.5	-0.5

Table 2. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Little Dominican Republic Study Area - With Action Peak Hour

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		MD		PM	
						PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
1	W 179th St & Broadway	NB	NBL	L	L	3.0	2.7	2.5	2.8	1.3	2.5
			NBT	T	T	2.6		2.9		3.1	
		SB	SBT	T	T	3.0	2.8	1.9	1.6	1.6	0.9
			SBR	TR	R	2.2		1.1		-0.8	
		WB	WBL	TR	L	3.1	-0.1	1.9	-2.2	2.4	-2.8
			WBT		T	-1.1		-3.3		-4.0	
			WBR		R						

Table 3. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Long Island City Study Area – With Action Peak Hour

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM	
						PCE	DW PCE
1a	Pulaski Bridge / 11th Street & Jackson Avenue	NB	NBL	LT	L	0.0	0.0
			NBT	T	T	-0.1	
			NBR	R	R	0.2	
		SB	SBT	T	T	0.0	0.0
			SBR	TR	R	0.3	
		EB	EBL	LT	L	-1.5	-1.2
			EBT	T	T	-1.1	
		WB	WBL	L	L	-0.1	0.0
			WBT	T	T	0.2	
1b	11th Street & 48th Avenue	NB	NBL	L	L	0.0	-0.1
			NBT	T	T	-0.2	
		SB	SBT	T	T	0.0	0.0
			SBR	TR	R	0.0	
		WB	WBL	LTR	L	0.0	0.0
			WBT		T	0.0	
			WBR		R	0.0	

Table 3. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Long Island City Study Area – With Action Peak Hour (Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM	
						PCE	DW PCE
2	50th Avenue @ Vernon Blvd	NB	NBT	T	T	-0.2	-0.2
			NBR	R	R	0.4	
		SB	SBL	LT	L	1.1	0.1
			SBT		T	0.0	
		EB	EBL	LTR	L	0.0	0.3
			EBT		T	0.7	
			EBR		R	0.0	
3	Green Street & McGuinness Blvd	NB	NBT	T	T	-0.1	-0.1
			NBR	TR	R	0.0	
		SB	SBL	L	L	0.0	-0.1
			SBT	T	T	-0.1	
		EB	EBL	LTR	L	0.0	0.0
			EBT		T	0.0	
			EBR		R	0.0	
4	McGuinness Blvd & Freeman Street	NB	NBT	T	T	-0.1	-0.1
		SB	SBT	T	T	-0.1	-0.1
			SBR	TR	R	0.0	
		WB	WBR	R	R	-0.5	-0.5

Table 3. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Long Island City Study Area – With Action Peak Hour (Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM	
						PCE	DW PCE
5	21st Street & 49th Avenue	NB	NBL	LTR	L	0.0	0.0
			NBT		T	0.0	
			NBR		R	0.0	
		SB	SBL	LTR	L	0.0	-0.1
			SBT		T	-0.1	
			SBR		R	0.0	
		EB	EBL	LTR	L	-0.2	-0.3
			EBT		T	-0.3	
			EBR		R	-0.4	
		WB	WBL	LT	L	0.0	0.0
			WBT		T	0.0	
			WBR	R	R	0.0	
7	11th Street & Borden Avenue	NB	NBL	LTR	L	-0.3	-0.4
			NBT		T	-0.1	
			NBR		R	-1.6	
		SB	SBL	LTR	L	-1.3	-1.2
			SBT		T	0.0	
			SBR		R	-1.2	
		EB	EBL	LTR	L	0.1	0.1
			EBT		T	0.0	
			EBR		R	-1.6	
		WB	WBL	LTR	L	0.0	-0.2
			WBT		T	0.0	
			WBR		R	-1.3	

Table 3. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Long Island City Study Area – With Action Peak Hour (Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM	
						PCE	DW PCE
8a	Van Dam Street & QMT Expwy	NB	NBL	LT	L	-0.1	-0.1
			NBT	T	T	-0.1	
		SB	SBT	T	T	-0.5	-0.5
			SBR	TR	R	-0.1	
		WB	WBT	T	T	-0.2	-0.1
			WBR	TR	R	0.0	
8b	Van Dam Street & Borden Avenue	NB	NBT	T	T	-0.1	-0.1
			NBR	TR	R	0.0	
		SB	SBL	L	L	-0.3	-0.3
			SBT	T	T	-0.5	
		EB	EBL	LTR	L	-0.2	0.0
			EBT		T	0.0	
			EBR		R	0.0	
9	Jackson Ave / Northern Blvd & Queens Plaza	NB	NBL	LT	L	0.0	-1.1
			NBT		T	-1.2	
			NBR	TR	R	-0.3	
		SB	SBL	LT	L	0.0	0.1
			SBT	T	T	0.1	
		EB	EBT	T	T	-0.6	-0.6
			EBR	R	R	-0.6	
		WB	WBL	LT	L	0.0	-0.1
			WBT	T	T	-0.1	
			WBR	TR	R	0.0	

Table 3. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Long Island City Study Area – With Action Peak Hour (Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM	
						PCE	DW PCE
10	Thomson Avenue & Van Dam Street	NB	NBL	L	L	-7.6	-2.1
			NBT	T	T	0.0	
			NBR	TRR2	R	0.0	
			NBR2		R2	0.0	
		SB	SBT	T	T	-0.7	-0.7
			SBR	R	R	-0.8	
		EB	EBR	R	R	-0.2	-0.1
			EBR2	R2	R2	-0.1	
		WB	WBT	T	T	0.0	0.0
11a	Thomson Avenue & Dutch Kills Street	SB	SBL	L	L	0.0	0.0
			SBR	LR	R	0.0	
		EB	EBT	T	T	-0.2	-0.2
		WB	WBT	T	T	0.0	0.0
			WBR	R	R	0.0	
11b	Thomson Avenue & Dutch Kills Street	WB	WBT	T	T	0.0	-0.1
			WBR	R	R	-0.6	
		EB	EBT	T	T	-0.2	-0.2
12	21st Street & Queens Plaza N	NB	NBL	LT	L	0.0	-0.1
			NBT	T	T	-0.1	
		SB	SBT	T	T	0.0	-0.1
			SBR	R	R	-0.6	
		WB	WBL	LTR	L	-0.1	-0.1
			WBT		T	-0.7	
			WBR		R	0.0	

Table 4. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Lower East Side Study Area – With Action Peak Hour

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		MD		PM	
						PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
1	Park Row/Chatham Square & Worth/Oliver St & Mott St	NB	NBL	LT	L	0.0	-0.1	0.0	-0.2	0.0	-0.3
			NBT		T	0.0		0.0		0.0	
			NBR2	R	R2	-0.3		-0.5		-0.6	
		SB	SBL	T	T	-0.7	-0.5	-0.5	-0.4	-0.8	-0.6
			SBT	TR	T	0.0		0.0		0.0	
			SBR		R	0.0		0.0		0.0	
		EB	EBT	TR	T	0.0	0.0	0.0	0.0	0.0	0.0
			EBR		R	0.0		0.0		0.0	
		WB	WBL	L	L	-0.9	-0.7	-3.7	-2.3	-3.7	-2.1
			WBT	T	T	0.0		0.0		0.0	
			WBR	TR	R	-0.8		-2.8		-2.4	
		SWB	SWL2	LR	L2	0.0	0.0	0.0	0.0	0.0	0.0
			SWL		L	0.0		0.0		0.0	
			SWR		R	0.0		0.0		0.0	
2	Chatham Square & E Broadway	NB	NBL	L	L	0.0	0.0	0.0	0.0	0.0	0.0
			NBR	R	R	0.0		0.0		0.0	
		EB	EBT	T	T	-0.6	-0.4	-0.8	-0.4	-1.0	-0.6
			EBR	R	R	0.0		0.0		0.0	
		WB	WBL	L	L	0.0	-0.8	0.0	-2.5	0.0	-2.4
			WBT	T	T	-1.3		-4.6		-4.3	



Table 4. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Lower East Side Study Area - With Action Peak Hour  
(Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		MD		PM	
						PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
3	Chatham Square/Bowery & Division St	NB	NBL	L	L	0.0	0.0	0.0	0.0	0.0	0.0
			NBR	T	T	0.0		0.0		0.0	
		EB	EBT	T	T	-0.5	-0.5	-0.6	-0.6	-0.9	-0.9
			EBR2	TR	R2	0.0		0.0		0.0	
		WB	WBL	LT	L	0.0	-1.4	0.0	-3.6	0.0	-5.4
			WBT	T	T	-1.5		-3.7		-5.6	

Table 5. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Lower Manhattan Study Area – With Action Peak Hour

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		MD		PM	
						PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
1	Trinity Place & Edgar Street	NB	NBL	LT	L	0.0	-2.7	0.0	-4.9	0.0	0.0
			NBT	T	T	-2.7		-4.9		0.0	
		EB	EBL	L	L	0.0	0.0	0.6	0.6	0.0	0.0
2	Trinity Place & Rector Street	NB	NBT	T	T	-1.7	-1.7	-0.5	-0.5	-0.2	-0.3
			NBR	R	R	-1.5		0.2		-5.0	
		EB	EBL	LT	L	0.0	-0.0	0.0	-0.0	-0.9	-0.7
			EBT		T	-0.1		0.0		-0.1	
3a	HCT Entrance/Exit & West Street	NB	NBT	T	T	-0.1	0.0	-0.3	-0.1	-0.2	-0.3
			NBR2	R2	R2	0.2		0.1		-0.3	
		SB	SBT	T	T	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3
		WB	WBL	L	L	0.0	0.0	0.2	0.2	0.0	0.0
3b	HCT Exit & West Street & West Thames Street	NB	NBT	T	T	-0.1	-0.1	-0.3	-0.3	-0.2	-0.2
		SB	SBT	T	T	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3
			SBR	R	R	0.0		0.0		0.0	
		EB	EBR	R	R	0.0	0.0	0.0	0.0	0.0	0.0
		WB	WBR	R	R	0.0	0.0	0.2	0.2	0.0	0.0

Table 5. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Lower Manhattan Study Area - With Action Peak Hour (Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		MD		PM	
						PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
4	Chambers Street & Centre Street	NB	NBL	L	L	-0.4	-0.4	-0.8	-0.8	-0.8	-0.7
			NBT	T	T	-0.4		-0.8		-0.7	
		SB	SBT	TR	T	-0.5	-0.5	-0.5	-0.5	-1.1	-1.1
			SBR		R	-0.6		-0.8		-1.0	
		EB	EBR	R	R	0.0	0.0	0.1	0.1	-0.4	-0.4
5a	Canal Street & Hudson Street/Holland Tunnel On-Ramp	NB	NBL	LTR	L	0.0	-0.1	0.0	-0.5	0.0	-0.2
			NBT		T	0.0		0.0		0.0	
			NBR		R	-0.9		-1.5		-0.7	
			NBR2	R2	R2	0.0		-0.4		-1.0	
		EB	EBL2	L2L	L2	0.0	-0.5	-0.1	-0.9	0.0	-0.5
			EBL		L	-1.2		-1.8		-0.9	
			EBT	T	T	-0.2		-0.4		-0.4	
		WB	WBT	T	T	-0.8	-0.8	-2.0	-2.0	0.0	0.0
			WBR	R	R	-1.2		-1.8		0.0	
5b	Canal Street & Holland Tunnel On-Ramp	EB	EBT	T	T	-0.3	-0.3	-0.6	-0.6	-0.4	-0.4
		WB	WBT	T	T	-0.9	-0.4	-2.1	-1.2	0.0	-0.1
			WBR	R	R	0.0		0.0		0.0	
7a	Canal Street S & West Street	NB	NBT	T	T	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
			NBR	R	R	-0.2		-0.7		0.0	
		SB	SBL	L	L	-0.3	-0.2	-0.9	-0.3	-0.6	-0.4
			SBT	T	T	-0.1		-0.2		-0.4	

Table 5. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Lower Manhattan Study Area - With Action Peak Hour (Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		MD		PM	
						PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
7b	Canal Street N & West Street	NB	NBT	T	T	0.0	0.0	-0.1	-0.1	-0.1	-0.1
		SB	SBT	T	T	-0.1	-0.1	-0.3	-0.3	-0.4	-0.4
		WB	WBL	LR	L	0.0	0.0	0.0	0.0	0.0	0.0
			WBR		R	0.0		0.0		0.0	
9	West Street & Albany Street	NB	NBT	T	T	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
			NBR	TR	R	0.0		0.0		-0.2	
		SB	SBL		L	-5.3	0.0	0.0	-0.1	0.0	-0.3
			SBT	T	T	0.0		-0.1		-0.3	
			SBR	R	R	-0.1		-0.1		-0.1	
		EB	EBL	L	L	0.0	0.0	2.7	0.7	0.0	0.0
			EBT	T	T	0.0		-1.1		0.0	
			EBR	R	R	0.1		0.0		0.0	
		NB	NBL	L	L	0.0	-0.1	0.0	-0.2	0.0	-0.2
			NBT	T	T	-0.1		-0.2		-0.2	
10	West Street & Vesey Street	SB	SBT	T	T	0.0	0.0	-0.1	-0.1	-0.2	-0.2
			SBR	R	R	-0.1		-0.1		-0.1	
		EB	EBL	L	L	0.0	0.0	-0.1	0.0	0.0	-0.0
			EBR	R	R	0.0		0.0		0.0	
		WB	WBL	LT	L	0.0	0.0	0.0	0.0	0.0	0.0
			WBT		T	0.0		0.0		0.0	
			WBR	R	R	0.0		0.0		0.0	

Table 5. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Lower Manhattan Study Area - With Action Peak Hour (Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		MD		PM	
						PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
11	West Street & Chambers Street	NB	NBT	T	T	-0.2	-0.1	-0.3	-0.3	-0.3	-0.3
			NBR	TR	T	0.0		-0.2		-0.2	
		SB	SBL	L	L	-0.1	-0.1	-0.1	-0.1	-0.4	-0.3
			SBT	T	T	0.0		-0.1		-0.3	
			SBR	R	R	-0.1		-0.2		-0.2	
		EB	EBL	LTR	L	-0.1	0.0	-0.1	-0.1	0.0	0.0
			EBT		T	0.0		0.0		0.0	
			EBR		R	0.0		0.0		0.0	
		WB	WBL	LT	L	0.0	0.0	0.0	-0.1	0.0	0.0
			WBT		T	0.0		0.0		0.0	
			WBR	R	R	0.0		-0.1		0.0	
14	Canal Street/Manhattan Bridge & Bowery	EB	EBT	T	T	-0.7	-0.7	-1.6	-1.4	-1.1	-1.0
			EBR	R	R	0.0		-0.2		-0.3	
		WB	WBT	T	T	-0.7	-0.7	-1.0	-1.0	-2.0	-2.0
			NBT	T	T	0.0		-0.2		-0.2	-1.2
		NB	NBR	R	R	-0.7		-1.7	-1.7	-1.2	
			SBL	L	L	-1.3	-1	-2.3		-2.2	-2.4
			SBT	TR	T	-0.5		-1.2		-3.4	
			SBR		R	-0.7		-0.7		-1.0	
15	Manhattan Bridge & Bowery	NB	NBT	T	T	-0.1	-0.1	-0.3	-0.3	-0.3	-0.3
		SB	SBT	T	T	-1.0	-1.0	-1.9	-1.9	-2.4	-2.4
		WB	WBR	R	R	-1.7	-1.7	-2.8	-2.8	-2.7	-2.7

Table 5. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Lower Manhattan Study Area - With Action Peak Hour (Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		MD		PM	
						PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
18	6th Avenue & Watts Street	WB	WBT	TR	T	-0.3	-0.3	-0.5	-0.5	-0.4	-0.4
			WBR		R	0.0		-0.1		0.0	
		NB	NBL	LT	L	-0.6	-0.4	-1.1	-0.7	-1.2	-1.1
			NBT		T	-0.4		-0.7		-1.0	
19	Canal Street & 6th Avenue/Laight Street	NEB	NER	R	R	-0.4	-0.4	-0.9	-0.9	-1.1	-1.1
		NB	NBL	LTR	L	-0.2	-0.3	-0.5	-0.5	-0.7	-0.8
			NBT		T	-0.3		-0.4		-0.8	
			NBR		R	0.0		-1.2		-1.2	
		EB	EBT	T	T	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4
		WB	WBT	TR	T	-0.3	-0.3	-0.4	-0.3	-0.3	-0.5
			WBR		R	-0.3		-0.3		-0.5	

Table 6. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Queens Midtown Tunnel Study Area – With Action Peak Hour (No Mitigation)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	MD		LN	
						PCE	DW PCE	PCE	DW PCE
1	E 37th Street & 3rd Avenue	NB	NBL	L	L	-1.0	-0.4	-0.6	-0.4
			NBT	T	T	-0.4		-0.4	
		WB	WBT	T	T	0.0	0.0	0.0	0.0
			WBR	R	R	0.0		0.1	
2	E 36th Street & 2nd Avenue	SB	SBL	L	L	-0.7	-0.2	-0.6	-0.3
			SBT	T	T	-0.1		-0.2	
		EB	EBT	T	T	-0.5	-0.4	-0.4	-0.4
			EBR	TR	R	0.0		-0.3	
		WB	WBL	L	L	0.0		0.0	
3	E 34th Street & 3rd Avenue	NB	NBL	LT	L	-0.1	-0.4	-0.1	-0.3
			NBT	T	T	-0.5		-0.3	
			NBR	R	R	-0.3		-0.1	
		EB	EBT	T	T	-0.5	-0.5	-0.6	-0.6
		WB	WBT	T	T	-0.3	-0.3	-0.5	-0.5
			WBR	R	R	-0.1		-0.3	
4	E 35th Street & 3rd Avenue	NB	NBL	LT	L	-0.2	-0.4	-0.2	-0.3
			NBT	T	T	-0.4		-0.3	
		WB	WBT	T	T	-0.4	-0.3	-0.6	-0.6
			WBR	TR	R	-0.1		-0.4	

Table 6. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Queens Midtown Tunnel Study Area - With Action Peak Hour (No Mitigation) (Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	MD		LN	
						PCE	DW PCE	PCE	DW PCE
5	E 34th Street & 2nd Ave	SB	SBL	L	L	0.0	-0.1	-0.1	-0.2
			SBT	T	T	-0.1		-0.2	
			SBR	R	R	-0.4		-0.2	
		EB	EBT	T	T	-0.3	-0.2	-0.2	-0.2
			EBR	TR	R	0.0		-0.1	
		WB	WBT	T	T	-0.5	-0.5	-0.5	-0.5
6	E 35th Street & 2nd Ave	SB	SBT	T	T	-0.1	-0.1	-0.2	-0.2
			SBR	R	R	-0.2		-0.1	
		EB	EBR	R	R	0.0	0.0	-0.3	-0.3
		WB	WBT	T	T	-0.1	-0.1	-0.4	-0.4
			WBL	L	L	-0.1		-0.3	



Table 7. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Red Hook Study Area – With Action Peak Hour

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		MD		LN	
						PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
1	Hamilton Avenue, Clinton Street & West 9th Street	EB	EBT	TR	T	0.0	0.0	-0.2	-0.2	0.0	0.0
			EBR		R	0.0		0.0		0.0	
		NB	NBL	LT	L	0.0	-0.0	0.0	-0.1	0.0	-0.3
			NBT		T	0.0		-0.1		-0.3	
		SB (at West 9th)	SBT	TR	T	0.1	0.1	0.0	0.0	0.1	0.1
			SBR		R	0.0		0.0		0.0	
		SB (at Clinton St)	SBL	L	L	0.1	0.1	0.0	0.0	0.0	0.0
			SBT	LTR	T	0.1		0.0		0.0	
			SBR		R	0.0		0.0		0.0	
		WB	WBL	L	L	0.0	0.0	0.0	0.0	0.0	0.0
			WBT	T	T	0.0		0.0		0.0	
2	Hamilton Avenue NB & West 9th Street	NB	NBT	T	T	-0.1	-0.1	-0.1	-0.1	-0.4	-0.4
		WB	WBR	R	R	0.0	-0.0	-0.2	-0.2	-0.4	-0.4

Table 81. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - RFK Bridge Study Area – With Action Peak Hour

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		PM		LN	
						PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
1	126th Street and 2nd Avenue	NW	NWL2	L	L2	0.0	0.0	0.0	0.0	0.0	0.0
			NWL		L	0.0		0.0		0.0	
			NWR	R	R	0.0		0.0		0.0	
		SB	SBT	TR	T	-0.2	-0.2	-0.4	-0.4	-0.1	-0.2
			SBR		R	-0.1		-0.5		-0.8	
		WB	WBL	L	L	-0.2	-0.1	-0.3	-0.3	0.0	-0.1
			WBT	T	T	-0.1		-0.4		-0.1	
			WBR	R	R	-0.1		-0.4		-0.2	
		2	125th Street and 2nd Avenue	SB	SBL	L	L	0.0	-0.3	-0.2	-0.4
SBT	TR				T	-0.4	-0.6	-0.3			
SBR					R	-0.4	-0.7	-0.9			
SW	SWL			L	L	0.6	0.6	2.0	2.0	0.3	0.3
	SWR			R	R	0.6		2.0		0.3	
EB	EBT			TR	T	0.3	0.2	0.3	0.3	1.1	1.0
	EBR				R	0.0		0.0		0.0	
WB	WBL			LT	L	-3.5	-3.2	-3.4	-3.6	-0.5	-3.9
	WBT				T	-3.1		-3.7		-4.2	

Table 8. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - RFK Bridge Study Area - With Action Peak Hour  
(Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		PM		LN	
						PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
11	E 134th Street & St. Ann's Avenue	NB	NBT	TR	T	0.0	0.0	0.0	0.0	0.0	0.0
			NBR		R	0.0		0.0		0.0	
		SB	SBL	LT	L	0.0	0.0	0.0	0.0	0.0	0.0
			SBT		T	0.0		0.0		0.0	
		EB	EBL	LTR	L	0.0	0.0	0.0	0.0	0.0	0.0
			EBT		T	0.0		0.0		0.0	
			EBR		R	0.0		0.0		0.0	
22	St Ann's Ave and Bruckner Blvd	NB	NBL	LTR	L	0.0	0.0	0.0	0.0	0.0	0.0
			NBT		T	0.0		0.0		0.0	
			NBR		R	0.0		0.0		0.0	
		SB	SBL	LTR	L	0.0	0.0	0.0	0.0	0.0	0.0
			SBT		T	0.0		0.0		0.0	
			SBR		R	0.0		0.0		0.0	
		EB	EBL	LTR	L	0.0	0.0	0.0	0.0	0.0	0.0
			EBT		T	0.0		0.0		0.0	
			EBR		R	0.0		0.0		0.0	
		WB	WBL	LTR	L	0.0	0.0	0.0	0.0	0.0	0.0
			WBT		T	0.0		0.0		0.0	
			WBR		R	0.0		0.0		0.0	

Table 8. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - RFK Bridge Study Area - With Action Peak Hour  
(Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	AM		PM		LN	
						PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
17	31st St & Astoria Blvd	NB	NBT	T	T	-0.9	-0.9	0.4	0.5	-7.4	-6.8
			NBR	R	R	-0.5		1.5		-3.4	
		SB	SBT	T	T	-0.1	-0.1	-0.5	-0.5	-0.4	-0.4
			SBR	R	R	-0.1		-0.5		-0.4	
		EB	EBL	L	L	0.4	0.2	0.3	0.2	0.0	0.5
			EBT	T	T	0.2		0.2		0.5	
			EBR	R	R	0.1		0.1		0.5	
24	Hoyt N & 31st St	NB	NBL	L	L	-0.8	-1.2	0.9	0.3	-8.6	-5.2
			NBT	T	T	-1.2		0.1		-3.2	
		SB	SBT	T	T	-0.3	-0.2	-3.3	-1.4	-1.3	-1.1
			SBR	R	R	0.0		-0.1		-0.2	
		WB	WBL	L	L	0.0	-0.0	0.0	-0.2	0.0	-0.1
			WBT	T	T	0.0		-0.2		-0.1	
			WBR	R	R	0.0		0.0		0.0	
3	Hoyt S & 31st St	NB	NBT	T	T	-0.7	-0.7	0.3	0.4	-6.8	-6.2
			NBR	R	R	-1.1		0.8		1.0	
		SB	SBL	L	L	0.0	-0.1	0.0	-0.4	0.0	-0.3
			SBT	T	T	-0.1		-0.4		-0.4	
		EB	EBL	L	L	0.2	0.3	0.0	0.1	0.8	0.6
			EBT	T	T	0.3		0.2		0.6	
			EBR	R	R	0.1		-0.2		-0.5	

Table 9. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Upper East Side Study Area – With Action Peak Hour

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	LN	
						PCE	DW PCE
1	E 60th Street & Queensboro Bridge Exit	NB	NBL	LTR	L	-2.6	-4.3
			NBT		T	-8.3	
			NBR		R	-2.8	
		EB	EBL	LT	L		-3.2
			EBT		T	-3.2	
2	E 60th Street & 3rd Ave	NB	NBL	L	L	-5.7	-3.3
			NBT	T	T	-3.1	
		WB	WBT	T	T	-6.4	-8.6
			WBR	R	R	-13.7	
3	E 60th Street & York Ave	NB	NBT	T	T	-2.8	-2.8
		SB	SBT	T	T	-2.6	-2.6
		EB	EBL	L	L	-0.7	-1.3
			EBT	LT	T	0.0	
			EBR	R	R	-2.8	
		WB	WBL	L	L	0.0	0.0
			WBT	T	T	0.0	
			WBR	R	R	0.0	

Table 9. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Upper East Side Study Area - With Action Peak Hour  
(Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	LN	
						PCE	DW PCE
4	E 59th Street & 2nd Ave	EB	EBT	T	T	-8.8	-7.0
			EBR	RR2	R	4.1	
			EBR2		R2	6.4	
		SB	SBL2	L2	L2	-9.1	-5.6
			SBL	L2L	L	5.6	
			SBT	T	T	-4.0	
5	E 60th Street & 2nd Ave	NWB	NWL2	L2	L2	-9.0	-9.2
			NWL	L	L	-9.4	
		SB	SBL2	L2	L2	3.3	-4.5
			SBT	TR	T	-4.8	
			SBR		R	0.3	
		WB	WBL	LT	L	1.2	-0.8
			WBT	T	T	-15.6	
6	E 60th Street & 1st Ave	NB	NBT	T	T	-3.4	-3.2
			NBR	TR	R	0.5	
		EB	EBL	L	L	-3.8	-3.0
			EBT	T	T	-2.2	
7	E 60th Street & Lexington Ave	SB	SBT	T	T	-3.3	-3.4
			SBR	R	R	-5.3	
		WB	WBL	L	L	-4.5	-6.2
			WBT	T	T	-6.5	
8a	E 60th Street & Park Ave NB	NB	NBL	LT	L	-2.7	-3.3
			NBT	T	T	-2.9	
			WBT	T	T	-7.8	
			WBR	TR	R	-8.7	

Table 9. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Upper East Side Study Area - With Action Peak Hour  
(Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	LN	
						PCE	DW PCE
8b	E 60th Street & Park Ave NB	SB	SBT	T	T	-2.6	-2.5
			SBR	TR	R	-1.4	
		WB	WBL	L	L	-3.1	-6.4
			WBT	T	T	-7.2	
9	E 60th Street & Madison Ave	NB	NBL	L	L	-7.3	-3.2
			NBT	T	T	-2.7	
		WB	WBT	T	T	-4.7	-5.4
			WBR	TR	R	-8.5	
10	E 62nd Street & Queensboro Bridge Exit	NB	NBT	T	T	1.8	0.9
			NBR	R	R	-0.1	
		EB	EBL	LT	L	-5.9	-5.2
			EBT	T	T	-5.2	
11	E 60th Street & 5th Ave	SB	SBT	T	T	-4.5	-4.3
			SBR	R	R	-3.1	
		WB	WBL	L	L	-4.8	-5.8
			WBT	T	T	-6.6	
12	E 63rd Street & York Ave	NB	NBT	T	T	-4.5	-3.8
			NBR	TR	R	-3.2	
		SB	SBL	L	L	-0.3	-1.9
			SBT	T	T	-2.5	
			SBR	TR	R	-4.0	
		WB	WBL	L	L	-1.1	-2.0
			WBT	LT	T	-1.8	
			WBR	TR	R	-7.1	

Table 9. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Upper East Side Study Area - With Action Peak Hour  
(Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	LN	
						PCE	DW PCE
13	E 53rd Street & FDR Drive	SB	SBR	R	R	-3.6	-3.6
		SWB	SWR	R	R	0.9	0.9
14	E 61st Street & 5th Ave	SB	SBT	T	T	-3.6	-3.6
		WB	WBL	L	L	-7.4	-7.4
15	E 65th Street & 5th Ave	SB	SBL	LT	L	-2.8	-3.1
			SBT	T	T	-3.1	
		EB	EBT	T	T	-2.3	-2.4
			EBR	R	R	-3.1	
16	E 66th Street & 5th Avenue	SB	SBT	T	T	-3.9	-3.5
			SBR	TR	R	-2.1	
		WB	WBL	LT	L	-0.2	-0.6
			WBT	T	T	-0.7	
17	E 79th Street & 5th Ave	SB	SBL	LT	L	-0.4	-4.0
			SBT	T	T	-4.1	
			SBR	TR	R	-4.5	
		EB	EBT	T	T	-2.9	-3.2
			EBR	R	R	-4.5	
		WB	WBL	L	L	-7.2	-3.4
			WBT	T	T	-2.7	



Table 9. Adopted Toll Structure Estimated Directional Weighted PCE Noise Level Changes - Upper East Side Study Area - With Action Peak Hour  
(Continued)

Intersection #	Intersection Name	Approach	Movement	Lane Group	Movement	LN	
						PCE	DW PCE
18	E 71st Street & York Ave	NB	NBL	LT	L	-7.7	-4.5
			NBT	T	T	-4.3	
			NBR	TR	R	0.0	
		SB	SBL	LT	L	0.0	-3.8
			SBT	LTR	T	-3.6	
			SBR	TR	R	-4.5	
		WB	WBL	L	L	-2.4	-2.5
			WBT	TR	T	-2.6	
			WBR		R	-2.5	

No change in identified mitigation needed. The adopted toll structure incorporates and expands the mitigation commitments of the Final EA and FONSI.

The adopted toll structure includes an overnight toll for trucks and other vehicles at 25 percent of the peak toll from 9 p.m. to 5 a.m. on weekdays and 9 p.m. to 9 a.m. on weekends

The adopted toll structure commits, for five years to a Low-Income Discount Plan for low-income frequent drivers who will benefit from a 50 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month (not including the overnight period, which will already be deeply discounted).

ove bus service in areas identified in the EA as the Brooklyn and Manhattan Bus Network Redesigns move forward.

Incorporating the identified mitigation, no disproportionately high and adverse effect would occur on low-income drivers.

No (with identified mitigation)

Access the CBD, with Some Caps and Exemptions	Base Plan with Same Tolls for All Vehicle Classes							
		Approximate Toll Rate Assumed for Autos, Commercial Vans, and Motorcycles <sup>3</sup>						
Peak	\$9	\$10	\$14	\$19	\$23	\$23	\$12	\$15
Off Peak	\$7	\$8	\$11	\$14	\$17	\$17	\$9	\$3.75
Overnight	\$5	\$5	\$7	\$10	\$12	\$12	\$7	\$3.75
Approximate Toll Rate Assumed for Trucks (Small Trucks/Large Trucks) <sup>3</sup>								
Peak	\$18 / \$28	\$20 / \$30	\$28 / \$42	\$38 / \$57	\$46 / \$69	\$65 / \$82	\$12 / \$12	\$24 / \$36
Off Peak	\$14 / \$21	\$15 / \$23	\$21 / \$32	\$29 / \$43	\$35 / \$52	\$49 / \$62	\$9 / \$9	
Overnight	\$9 / \$14	\$10 / \$15	\$14 / \$21	\$19 / \$29	\$23 / \$35	\$33 / \$41	\$7 / \$7	\$6 / \$9

## Proposed Structure for County Level AQ Effects

### **NAAQS Effects at the County Level**

#### Counties with Increases with Adopted Toll Structure (Table 10.3)

Queens  
Bronx  
Kings  
Richmond  
Suffolk  
Putnam  
Bergen

#### Counties with Decreases with Adopted Toll Structure (Table 10.3)

Nassau  
Westchester  
Rockland  
Hudson

### **MSAT Effects at the County Level**

#### Counties with Increases with Adopted Toll Structure (Table 10.4)

Queens  
Bronx  
Kings  
Richmond  
Suffolk  
Bergen

## Counties with Decreases with Adopted Toll Structure (Table 10.4)

Nassau

Westchester

Rockland

Putnam

Hudson

## Proposed Structure for County Level AQ Effects

### NAAQS Effects at the County Level

#### Counties with Increases with Adopted Toll Structure (Table 10.3)

Scenario A has ## counties with pollutant increases and the adopted toll structure has ##. Those counties with pollutant increases include \_\_\_\_\_. Those counties with the largest pollutant increases include \_\_\_\_\_.

Scenario A: Bronx, Richmond, Nassau, Suffolk, Westchester, Putnam, Bergen

ATS: Queens, Bronx, Kings, Richmond, Suffolk, Putnam, Bergen

#### Counties with Decreases with Adopted Toll Structure (Table 10.3)

Scenario A has ## counties with pollutant decreases and the adopted toll structure has ## counties with decreases. Those counties with pollutant decreases include \_\_\_\_\_. Those counties with the largest pollutant decreases include \_\_\_\_\_.

Scenario A: Queens, Kings, Rockland, Hudson

ATS: Nassau, Westchester, Rockland, Hudson

### MSAT Effects at the County Level

#### Counties with Increases with Adopted Toll Structure (Table 10.4)

Scenario A has ## counties with pollutant increases and the adopted toll structure has ##. Those counties with pollutant increases include \_\_\_\_\_. Those counties with the largest pollutant increases include \_\_\_\_\_.

Scenario A: Bronx, Richmond, Nassau, Suffolk, Putnam, Bergen

ATS: Queens, Bronx, Kings, Richmond, Suffolk, Bergen

Counties with Decreases with Adopted Toll Structure (Table 10.4)

Scenario A has ## counties with pollutant decreases and the adopted toll structure has ## counties with decreases. Those counties with pollutant decreases include \_\_\_\_\_. Those counties with the largest pollutant decreases include \_\_\_\_\_.

Scenario A: Queens, Kings, Westchester, Rockland, Hudson

ATS: Nassau, Westchester, Rockland, Putnam, Hudson

Case 2:23-cv-03885-LMG-BW Document 186-6 Filed 12/03/24 Page 311 of 512															
New York City	Narrative	Potential adverse effect would occur in Tolling Scenarios A, D, and G, which would not have caps or exemptions for taxis and FHV drivers.	Yes	Mitigation needed. TBTA will ensure that a toll structure with tolls of no more than once per day for taxis or FHV is included in the final CBD toll structure.	No disproportionately high and adverse effect would occur on New York City taxi and FHV drivers with the adopted toll structure, which includes a per-trip toll on trips to, within, or from the CBD of \$1.25 for taxis and \$2.50 for FHV. These per-trip tolls are equivalent to the once per day toll for passenger vehicles included as part of the adopted toll structure.								No	With the adopted toll structure, the limit of tolling once per day is achieved using the toll divided by the average number of trips a taxi and FHV make per day. The change in VMT falls within what was determined not adverse in the Final EA/FONSI. In addition, the adopted toll structure requires the cost of the toll to be paid by the passenger rather than the taxi or FHV driver.	-904 (-0.3%)
				Change in daily taxi/FHV VMT with passengers in the CBD relative to No Action Alternative: Scenarios included in EA	-21,498 (-6.6%)	+15,020 (+4.6%)	-11,371 (-3.5%)	-54,476 (-16.8%)	-25,621 (-7.9%)	+4,962 (+1.5%)	-27,757 (-8.6%)				
				Net change in daily taxi/FHV trips to CBD relative to scenarios included in EA: Additional analysis to assess effects of caps or exemptions	Tolls capped at 1x / Day: +2%	—	—	Tolls capped at 1x / Day: +3% Exempt: +50%	—	—	Tolls capped at 1x / Day: +2%	NA			



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<div>n monitorin g at the end of this table.</div>	<div>The maximum predicted noise level increase (0.5 dB(A)) at RFK Bridge in Manhattan, would not be perceptible.</div>	<div>No</div> <div> <div>No adver se effect s. The Proje ct Spon sors are maint aining their comm itment to imple ment the enhan ceme nt meas ures identif ied in the Final EA and FONS I.</div> </div>				
		<div>Local streets</div>	<div>Narrat ive</div>	<div>Tolling Scenario C was used to assess noise level changes in Downtown Brooklyn, Tolling Scenario D was used at all other locations assessed. The maximum predicted noise level increases (2.5 dB(A)), which were at Trinity Place and Edgar Street, would not be perceptible. There was no predicted increase in noise levels in the Downtown Brooklyn locations.</div>	<div>No</div>	<div>The maximum predicted noise level increases (2.8 dB(A)), at W. 179th St / Broadway, would not be perceptible.</div>

Summary of Effects

EA Chapter / Environmental Category	Topic	Location	Data Shown In Table	NEPA Tolling Scenarios A, B, C, D, E, F, G	Potential Adverse Effect		10J (TMRB Recommendation)	10J.2 (Same as 10J, but without a Taxi/FHV per-trip toll on within-CBD trips)
2 Evaluation Results	Project Objectives	28-county study area	Potential net revenue	\$830 million to \$1.48 billion	N/A		\$955 million	\$927 million
		Manhattan CBD	% Increase or decrease in daily vehicle miles traveled in the Manhattan CBD relative to No Action Alternative	-9% to -7%	N/A		-9%	-9%
4A – Transportation: Regional Transportation Effects and Modeling	Vehicle Volumes	Crossing locations to Manhattan CBD	% Increase or decrease in daily vehicles entering the Manhattan CBD relative to No Action Alternative	-20% to -15%	No		-17%	-17%
	Truck Trips Through Manhattan CBD	Manhattan CBD	Increase or decrease in daily truck trips through Manhattan CBD (without origin or destination in the CBD) relative to No Action Alternative	-6,784 to -1,734	No		-4,626	-4,569
				-81% to -21%			-55%	-54%
10 – Air Quality		Cross Bronx Expressway at Macombs Road, Bronx, NY	Increase or decrease in daily number of trucks	50 to 704	No		433	535
		I95, Bergen County, NJ	Increase or decrease in daily number of trucks	-254 to 955	No		499	480
		RFK Bridge, NY	Increase or decrease in daily number of trucks	432 to 4,116	No		2,433	2,428
17 – Environmental Justice	Taxi and FHV drivers	CBD	Change in daily taxi/FHV VMT with passengers in the CBD relative to No Action Alternative (All scenarios included in EA, including those with taxis and FHVs both capped at once per day, both uncapped, and taxis exempt and FHVs capped at 3x per day)	-16.8% to 4.6%	Yes		-0.3%	2.2%

**Tolling Parameters**

Parameter	NEPA Scenarios							TMRB Scenarios	
	A	B	C	D	E	F	G	10J	10J.2
Toll Rate - E-ZPass									
Peak - Autos	\$9 - \$23							\$15.00	
Overnight - Autos	\$5 - \$12							\$3.75	
Peak - Motorcycles	\$9 - \$23							\$7.50	
Overnight - Motorcycles	\$5 - \$12							\$1.75	
Peak - Small trucks	\$12 - \$65							\$24.00	
Overnight - Small trucks	\$7 - \$33							\$6.00	
Peak - Large trucks	\$12 - \$82							\$36.00	
Overnight - Large trucks	\$7 - \$41							\$9.00	
Peak – Buses*	\$12 - \$82							\$24.00	
Overnight – Buses	\$7 - \$41							\$6.00	
Toll Rate - Tolls By Mail									
Peak - Autos	\$14 - \$35							\$22.50	
Overnight - Autos	\$8 - \$18							\$5.50	
Peak - Motorcycles	\$14 - \$35							\$11.25	
Overnight - Motorcycles	\$8 - \$18							\$2.50	
Peak - Small trucks	\$18 - \$98							\$36.00	
Overnight - Small trucks	\$11 - \$49							\$9.00	
Peak - Large trucks	\$18 - \$123							\$54.00	
Overnight - Large trucks	\$11 - \$62							\$13.50	
Peak – Buses	\$18 - \$123							\$36.00	
Overnight – Buses	\$11 - \$62							\$9.00	

\*Higher toll rates for Sightseeing Buses were not included in any of the scenarios in this table. This is inclusive of TMRB 10J - while recommended in the TMRB’s Report, higher toll rates for Sightseeing Buses were not part of the modeling for any of the TMRB scenarios.

Parameter	NEPA Scenarios							TMRB Scenarios	
	A	B	C	D	E	F	G	10J	10J.2
<b>Applicable Trips</b>									
Tolls applied to CBD trips as they:	Enter or remain	Enter or remain	Enter or remain	Enter or remain	Enter or remain	Enter or remain	Enter or remain	Enter	
<b>Time Periods</b>									
Peak: Weekdays	6 a.m. to 8 p.m.	6 a.m. to 8 p.m.	6 a.m. to 8 p.m.	6 a.m. to 8 p.m.	6 a.m. to 8 p.m.	6 a.m. to 10 a.m.; 4 p.m. to 8 p.m.	6 a.m. to 8 p.m.	5 a.m. to 9 p.m.	
Peak: Weekends	10 a.m. to 10 p.m.	10 a.m. to 10 p.m.	10 a.m. to 10 p.m.	10 a.m. to 10 p.m.	10 a.m. to 10 p.m.	10 a.m. to 10 p.m.	10 a.m. to 10 p.m.	5 a.m. to 9 p.m.	
Off Peak: Weekdays	8 p.m. to 10 p.m.	8 p.m. to 10 p.m.	8 p.m. to 10 p.m.	8 p.m. to 10 p.m.	8 p.m. to 10 p.m.	10 a.m. to 4 p.m.	8 p.m. to 10 p.m.	9 p.m. to 5 a.m.	
Overnight: Weekdays	10 p.m. to 6 a.m.	10 p.m. to 6 a.m.	10 p.m. to 6 a.m.	10 p.m. to 6 a.m.	10 p.m. to 6 a.m.	8 p.m. to 6 a.m.	10 p.m. to 6 a.m.	9 p.m. to 5 a.m.	
Overnight Weekends	10 p.m. to 10 a.m.	10 p.m. to 10 a.m.	10 p.m. to 10 a.m.	10 p.m. to 10 a.m.	10 p.m. to 10 a.m.	10 p.m. to 10 a.m.	10 p.m. to 10 a.m.	9 p.m. to 5 a.m.	
<b>Potential Crossing Credits</b>									
Credit Toward CBD Toll for Tolls Paid at the Queens-Midtown, Hugh L. Carey, Lincoln, Holland Tunnels	No	No	Yes	Yes	Yes	Yes	No	Yes	
Credit Toward CBD Toll for Tolls Paid at the Robert F. Kennedy, Henry Hudson, George Washington Bridges	No	No	No	No	No	Yes	No	No	
Credit Amount - Autos and commercial vans	\$0.00 - \$13.10							\$5.00	
Credit Amount - Motorcycles	\$0.00 - \$13.10							\$2.50	
Credit Amount - Taxis	\$0.00 - \$13.10							\$0.00	
Credit Amount - FHV's	\$0.00 - \$13.10							\$0.00	
Credit Amount - Small trucks	\$0.00 - \$38.80							\$12.00	
Credit Amount - Large trucks	\$0.00 - \$64.66							\$20.00	
Credit Amount - Buses	\$0.00 - \$64.66							\$12.00	
Credit During Overnight	\$0.00 - \$64.66							\$0.00	

Parameter	NEPA Scenarios							TMRB Scenarios	
	A	B	C	D	E	F	G	10J	10J.2
Potential Exemptions and Limits (Caps) on Number of Tolls per Day									
Autos, motorcycles, and commercial vans	Once per day	Once per day	Once per day	Once per day	Once per day	Once per day	Once per day	Once per day	
Taxis	No cap	Once per day	Exempt	No cap	Exempt	Once per day	No cap	Equivalent to less than once per day toll - \$1.25 per trip toll on trips to, within, or from the CBD	Equivalent to less than once per day toll - \$1.25 per trip toll on trips to or from the CBD
FHVs	No cap	Once per day	Three times per day	No cap	Three times per day	Once per day	No cap	Equivalent to less than once per day toll - \$2.50 per trip toll on trips to, within, or from the CBD	Equivalent to less than once per day toll - \$1.25 per trip toll on trips to or from the CBD
Small and large trucks	No cap	Twice per day	No cap	No cap	No cap	Once per day	No cap	No cap	
Buses	No cap	Exempt	No cap	No cap	Transit buses – Exempt No cap on other buses	Exempt	No cap	Transit buses – Exempt	
Government Vehicles	No cap	No cap	No cap	No cap	No cap	No cap	No cap	Specialized vehicles – Exempt	
Discounts									
Auto Low-Income Discount Rate	\$7 - \$17							\$7.50	

Appendix 17D Environmental Justice Technical Memorandum Results

Topic	Location	Data Shown In Table	Scenario E	10J (TMRB Recommendation)	TMRB 10J.2 (Same as 10J, but without a Taxi/FHV per-trip toll on within-CBD trips)
Increases in truck traffic, as a result of traffic diversions, in communities already overburdened by preexisting air pollution and chronic diseases	90 AND 90 EJ Census Tracts (Place-Based)	Total Communities	13	13	13
		Total Tracts (green indicates new tracts in already-identified communities)	56	57 1 additional tract in High Bridge-Morrisania, Bronx, NY	57 1 additional tract in High Bridge-Morrisania in Bronx, NY
		Communities Added (Relative to E)	--	none	none
		Communities Removed (Relative to E)	--	none	none

Topic	Location	Data Shown In Table	Scenario E	10J (TMRB Recommendation)	TMRB 10J.2 (Same as 10J, but without a Taxi/FHV per-trip toll on within trips)
Increases in truck traffic, as a result of traffic diversions, in communities already overburdened by preexisting air pollution and chronic diseases	90 OR 90 EJ Census Tracts (Regional)	Total Communities	38	37	39
		Total Tracts (green indicates new tracts in already-identified communities, black indicates new tracts in added communities, grey in parentheses are tracts that were removed)	154	151 1 additional tract in High Bridge-Morrisania, Bronx, NY 1 additional tract in Downtown Brooklyn-Fort Greene, Brooklyn, NY 1 additional tract in Southwest Queens, Queens, NY (1 less tract in Bayside-Little Neck, Queens, NY) (1 less tract in Flushing-Clearview, Queens, NY) (1 less tract in Long Island City-Astoria, Queens, NY) (1 less tract in Ridgewood-Forest Hills, Queens) (1 less tract in Southeast Queens, Queens, NY) (1 less tract in Newark, Essex, NJ)	158 1 additional tract in High Bridge-Morrisania in Bronx, NY 1 additional tract in Downtown Brooklyn-Fort Greene, Brooklyn, NY 1 additional tract in Southwest Queens in Queens, NY 1 additional tract in Belleville Township in Essex, NJ 1 additional tract in Jersey City in Hudson, NJ 1 additional tract in Union Township in Union, NJ (1 less tract in Flushing-Clearview in Queens, NY) (1 less tract in Ridgewood-Forest Hills in Queens, NY)
		Communities Added (Relative to E)	--	none	2 Belleville Township in Essex, NJ is added Union Township Hudson, NJ is added
		Communities Removed (Relative to E)	--	1 (Ridgewood-Forest Hills, Queens, NY is removed)	1 (Ridgewood-Forest Hills in Queens, NY is removed)









**Central Business District Tolling Program**

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## Memorandum: Central Business District Tolling Program (CBDTP)

### Air Quality Analyses for Final EA and Reevaluation

May 2024

#### Introduction

This memorandum describes the methodology used in the Final EA and reevaluation for the mesoscale analysis of air quality and how that methodology is consistent in the use of the New York Metropolitan Transportation Council's (NYMTC's) Best Practice Model (BPM) and with FHWA's published guidance for assessing and reassessing the effects of the Project.<sup>1</sup> All traffic and air quality analyses were based on vehicle-related outputs from the BPM that was developed specifically for this Project, as is standard protocol for modeling large-scale transportation initiatives. The same BPM was used for the Final EA and the reevaluation.

For the Final EA's consideration of regional air quality effects and to support the transportation conformity determination that was being made by the New York Metropolitan Transportation Council (NYMTC) at the time work on the EA for the Project commenced, BPM output of vehicle-miles traveled (VMT) was adjusted in coordination with NYMTC. This adjustment is referred to as "post-processing" and is needed to determine regional transportation conformity according to NYMTC's standard procedure for projects that are not yet included in the Transportation Improvement Program (TIP) and NYMTC's Regional Plan, as was the status of this project at the time of the EA analysis.<sup>2</sup>

Transportation conformity is required by the Clean Air Act section 176(c) (42 U.S.C. 7506(c)) to ensure that federal funding and approval are given to highway and transit projects that are consistent with ("conform to") the air quality goals established by a state air quality implementation plan (SIP)<sup>3</sup>. The bullets below detail why this process needs to be done.

- The purpose of transportation conformity is to ensure that Federal funding and approval are given to activities that are consistent with air quality goals<sup>4</sup>.
- Conformity requirements apply in nonattainment and maintenance areas; the NYMTC region is nonattainment for ozone and maintenance for fine particulate matter (PM<sub>2.5</sub>).
- A motor vehicle emissions budget (MVEB) is the portion of the total allowable emissions in the area allocated to highway and transit vehicle use and emissions, as defined in the SIP.
- The budget establishes a cap on emissions that cannot be exceeded by estimated highway and transit vehicle emissions.

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<sup>1</sup> FHWA. Transportation Conformity, Linking Transportation and Air Quality. FHWA-HEP-10-030. [https://www.fhwa.dot.gov/Environment/air\\_quality/conformity/con\\_broc.pdf](https://www.fhwa.dot.gov/Environment/air_quality/conformity/con_broc.pdf).

<sup>2</sup> As noted in FHWA guidance, prior to the first time a non-exempt Federal project is adopted, accepted, approved, or funded, project-level conformity must be determined.

<sup>3</sup> EPA General Information on Transportation and Conformity <https://www.epa.gov/state-and-local-transportation/general-information-transportation-and-conformity>

<sup>4</sup> FHWA. Transportation Conformity Self-Directed Training. [https://connectdot.cosocloud.com/transportation\\_conformity\\_overview](https://connectdot.cosocloud.com/transportation_conformity_overview)

## Central Business District Tolling Program

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- The BPM's roadway/highway outputs must undergo a series of adjustments to calculate the regional VMT and speeds before emission rates can be applied to generate the required emissions estimates for conformity analysis. These adjustments include the following:
  - BPM data represents an average weekday, analyses are performed for 24 one-hour periods of a weekday.
  - Monthly adjustment factors are applied to incorporate monthly fluctuation and are adjusted to account for the number of days in that month to produce monthly VMT
  - Yearly VMT is the aggregation of twelve months and applicable time frames, as detailed in attachment A, based on the emission burden being calculated.

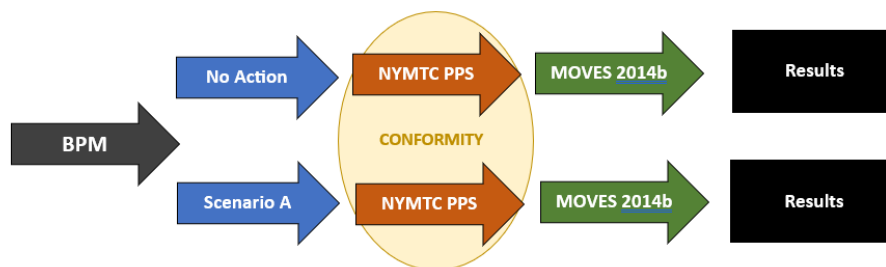
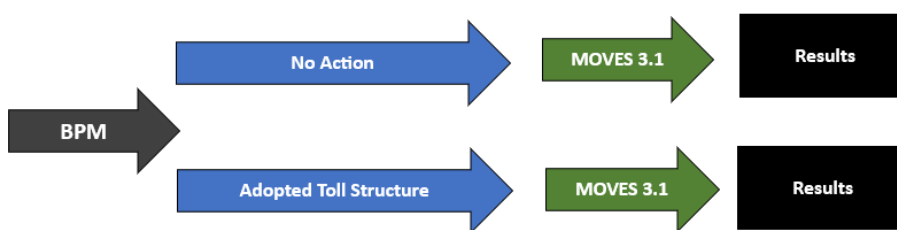
These post-processing adjustments were done to meet the requirements established by the Clean Air Act to ensure that all actions programmed in the MPO TIP and Plan, including CBDTP, do not exceed emission budgets established by relevant SIPs.

During the course of preparation of the Final EA, but after the analysis of regional air quality effects was complete, this project was incorporated into NYMTC's conforming TIP and long-range plan using Tolling Scenario A, which was predicted to result in the least amount of VMT reduction. Since conformity of NYMTC's Plan and TIP was determined prior to the reevaluation, and there has been no significant change in design concept and scope since conformity was determined, the Project is still part of a conforming TIP and long-range plan and as such a new conformity analysis is not required. Consequently, post processing was not needed as part of the reevaluation. It should be noted that post-processing BPM traffic for the air quality analysis is not needed when the project is included in the conforming TIP and long-range plan. NYMTC has confirmed that the adopted toll structure does not represent a significant change in design concept from Tolling Scenario A. Therefore, the Project is still part of a conforming plan and TIP and as such a new regional conformity analysis is not required.

The following diagrams and sections illustrate the process used for air quality analyses for the Final EA and reevaluation.<sup>5</sup>

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<sup>5</sup> Supplemental information is provided in Attachment A, and detailed information about the transportation conformity process can be found on FHWA's website: [https://www.fhwa.dot.gov/Environment/air\\_quality/conformity/2017\\_guide/guide00.cfm](https://www.fhwa.dot.gov/Environment/air_quality/conformity/2017_guide/guide00.cfm).

**Central Business District Tolling Program*****Air Quality Analysis Process for Final EA with Post-Processing******Air Quality Analysis Process for Reevaluation without Post-Processing*****NEPA Analysis: Draft and Final EA (2019-2023)**

- The CBDTP NEPA EA included an assessment of the Project's air quality effects on a mesoscale level. The Draft and Final EA documents presented the effects on air quality of Tolling Scenario A, which was the EA tolling scenario that the Project's transportation model predicted would result in the smallest regional reduction in VMT. In this way, the NEPA air quality conclusions were conservative, in that they did not overstate the benefits of the Project on air quality.
- The mesoscale air quality analysis conducted during the NEPA process served two purposes: it determined the Project's potential overall air quality effects for the EA, and it also supported the transportation conformity analysis performed by NYMTC, which is the Metropolitan Planning Organization (MPO) for the 10-county region encompassing New York City, Long Island, and the lower Hudson Valley.
- When the analysis of regional emissions commenced in 2019, the Project was not included in NYMTC's conforming transportation plan and transportation improvement program (TIP). Consequently, post processing allows the NYMTC to incorporate the project into the regional emissions analysis for air quality conformity.
- The BPM used for the Draft and Final EA was based on the BPM developed for NYMTC's 2018–2045 Regional Transportation Plan and transportation conformity determination adopted on June 27, 2017. For the EA, the roadway networks were updated to include projects that had been implemented or constructed but were not included in the 2017 BPM roadway networks from NYMTC (e.g., two-way tolling on the Verrazzano-Narrows Bridge, reduced lane capacity on the Brooklyn-Queens Expressway near Brooklyn Heights, and bike lane projects like the Brooklyn Bridge bike lane) in the opening (2023) and horizon (2045) years. This is described in the Final EA in Chapter 4, "Transportation," Subchapter 4A,

## Central Business District Tolling Program

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“Regional Transportation Effects and Modeling” (see pages 4A-1 through 4A-5). The BPM was used to estimate VMT for a No Action Alternative, in which CBDTP does not occur, and for an Action Alternative assuming Tolling Scenario A.

- The mesoscale air quality emissions analyses presented in the Draft and Final EA for Tolling Scenario A were subject to NYMTC’s Post-Processing Software (PPS), which results in modifications to the VMT results produced by the BPM. Please see Attachment A for more information on the Post Processing Software. This was done for consistency with the conformity analysis, which was initiated at the same time as the EA analysis. The results were evaluated with the MOVES 2014b emissions estimation model, which was the latest version approved by the U.S. Environmental Protection Agency (EPA) at the time of the analysis. This methodology for the Project was reviewed with the Interagency Consultation Group (ICG), the same group with which NYMTC coordinates when conducting its conformity analysis, consisting of EPA, FHWA, the Federal Transit Administration, the New York State Department of Environmental Conservation, and the New York State Department of Transportation. The ICG confirmed the approach on August 29, 2019.
- The localized air quality analyses used direct outputs from BPM, as is standard procedure for microscale analyses.

## NEPA Reevaluation (2024)

- At this time, the Triborough Bridge and Tunnel Authority (TBTA) is preparing a NEPA reevaluation of the Project that considers whether the adopted toll structure will have environmental effects consistent with the effects disclosed in the Final EA and whether the Final EA remains valid.
- CBDTP, using Tolling Scenario A, is now included in the conforming TIP and long-range plan, which have been found to conform to the SIP (see NYMTC’s Transportation Conformity Determination, adopted September 21, 2023<sup>6</sup>). NYMTC has also confirmed that the adopted toll structure does not represent a significant change in design concept from Tolling Scenario A. Therefore, the Project is still part of a conforming plan and as such a new regional conformity analysis is not required.
- For the reevaluation air quality analysis, the Project team used the same version of the BPM that was used for the Draft and Final EA. The reevaluation used direct output from the BPM related to VMT for the air quality emissions analysis, as there was no need for performing adjustments to the results using NYMTC’s Post-Processing Software, as the project is now part of a conforming plan and TIP. The BPM results, without post-processing, were modeled using the current EPA emissions model, MOVES3.1. This approach for the reevaluation was confirmed through consultation with NYSDOT on October 12, 2023. Direct output from the BPM analysis (i.e., without post processing) estimated a smaller reduction in VMT for Tolling Scenario A than for the adopted toll structure, meaning that the adopted toll structure would result in more emission savings than Tolling Scenario A (which is in the conforming TIP).
- Analyses of mesoscale air quality as well as microscale air quality for the reevaluation relied on direct outputs from the BPM.

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<sup>6</sup> <https://www.nymtc.org/Portals/0/Pdf/Conformity/Conformity%202023/Adopted%20Documents/2023%20Transportation%20Conformity%20Determination%20Final%20Adopted%2092123.pdf?ver=MOeeqooFnfO3koBgp6sOCg%3d%3d>

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**Findings**

The Draft and Final EA analyses reflected the use of post-processed traffic data in the regional air quality analysis to be consistent with the traffic data used in the NYMTC conformity analysis. In contrast, the reevaluation used traffic information straight from the BPM, because the Project was included in NYMTC's currently conforming plan and TIP and standard protocol is that post-processing is not required. Furthermore, direct output from the BPM for the adopted toll structure confirmed that VMT reduction for Tolling Scenario A would be smaller than for the adopted toll structure, meaning that the adopted toll structure would result in more emissions savings than Tolling Scenario A.

According to NYMTC, the Post-Processing Software typically increases the VMT by approximately 20 percent (which is conservative for conformity purposes, since higher VMT results in higher levels of air pollutant and these can be compared with the pollutant "budgets" of the SIP to ensure that pollutant budgets are not exceeded). As such, the VMT presented in the Final EA is higher than in the reevaluation. However, since use of the Post-Processing Software was applied to both the No Action and "with Project" scenarios for the Final EA, and was not applied to either for the reevaluation, the incremental changes between No Action and Project can be compared between the two analyses.

Detailed information regarding the BPM, Post-Processing Software, and MOVES is provided in Attachment A to this document.

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## Attachment A

### BPM

NYMTC uses the New York Best Practice Model (BPM), an activity-based and tour-based travel demand model, to predict and simulate detailed travel patterns for every household in the 28-county study area, over a 24-hour weekday period, based on their travel behavior.

The BPM traffic assignments produce travel demand forecasts on the transportation networks. The roadway/highway assignment outputs must undergo a series of adjustments to calculate the regional VMT and speeds before the emission rates can be applied to generate the required emissions estimates. The adjustments involve the following steps:

- Calculating VMT
- Highway Performance Monitoring System (HPMS) Reconciliation - HPMS is a national program that includes inventory information for all of the nation's public roads as certified by the states' governors annually. HPMS reconciliation factors are applied to the link VMTs to account for the missing local roads and adjustment of higher functional class roadways, to get an accurate estimate of the regional VMT.
- Travel Time Adjustments

➤ **CBDTP EA ANALYSIS:** BPM was run for the No Action condition and Tolling Scenario A.

➤ **CBDTP REEVALUATION:** BPM was run for the same No Action condition and adopted toll structure.

### Post-Processor Software for Air Quality (PPS-AQ)

NYMTC's PPS-AQ is a powerful web-based application that bridges input data from the BPM and runs it through MOVES to produce an emissions estimate. The PPS-AQ preprocesses BPM output data, invokes MOVES to generate emission rate files, and produces an emission inventory for the regional emissions analysis.

For the EA analysis, the PPS-AQ output from the BPM was used with Project-specific MOVES inputs to generate the emissions. According to NYMTC, the PPS increases VMT from the BPM by approximately 20%.

- DOMAIN/SCALE: Analysis was performed at the county level. The roadways are disaggregated by functional class and, after HPMS reconciliation, aggregated to MOVES road types for the emissions analysis.
- CALCULATION TYPE: Analysis was performed using the "emissions rate" methodology.
- TIME SPAN: Analyses were performed for 24 one-hour periods of a weekday since the BPM data represent an average weekday. The PPS-AQ applies monthly adjustment factors to incorporate monthly fluctuation and then multiplies that adjusted value to the number of days in that month to produce monthly VMT. Yearly VMT is the aggregation of twelve months. All twelve months are selected for the annual emissions forecasts of fine particulate matter (PM<sub>2.5</sub>) and nitrogen oxides (NOx). To reflect the

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summer months for analysis of volatile organic compounds (VOC) and NO<sub>x</sub>, the ozone precursors, an average day of summer months (June, July, August) is selected.

- **GEOGRAPHIC BOUNDARY:** Custom domains based on the geographic boundary of each nonattainment area in the NYMTC planning area were established in the PPS-AQ.
- **COUNTY DATA INPUTS:** the most recent county-specific MOVES input databases from NYSDEC and NYSDOT are used.

- **CBDTP EA ANALYSIS:** No Action and Tolling Scenario A were run through PPS for inclusion in NYMTC's TIP.
- **CBDTP REEVALUATION:** No Action and the adopted toll structure were not run through the PPS, as the Project is now in the TIP; direct output from the BPM was used.

## MOVES

USEPA's MOtor Vehicle Emission Simulator (MOVES) is a state-of-the-science emission modeling system that estimates emissions for mobile sources at the national, county, and project level for "criteria" air pollutants (i.e., those specified by the Clean Air Act, as amended), greenhouse gases, and air toxics. MOVES estimates emissions from all the on-road vehicles including cars, trucks, motorcycles, and buses. As noted in the EPA transportation conformity regulation and associated EPA guidance, all regional emissions analyses are required to be based on the latest version of the MOVES software.

There are two options for using MOVES to forecast emissions: 1) inventory mode; and 2) emissions rate mode. The inventory mode calculates total emissions inventory based on vehicle miles of travel and vehicle population data. The emission rate mode produces a look-up table of emission rates including emissions per unit of distance for running emissions, the rate per profile for evaporative processes, and the rate per vehicle for starts and extended idling. As per EPA guidance, NYMTC can use either method to conduct regional emissions analyses. NYMTC, with the concurrence of the ICG, chose to use the emissions rate mode for its emission inventory analysis since emission rates can be applied to multiple scenarios in the same calendar analysis year, thereby reducing the amount of "run-time" for each scenario analysis.

- **CBDTP EA ANALYSIS:** MOVES2014b (latest version at the time) was used.
- **CBDTP REEVALUATION:** MOVES3.1 (latest version, consistent with NYMTC) used.

A full description of the NYMTC conformity process can be found in the [NYMTC 2023 Transportation Conformity Determination](#).

## CENTRAL BUSINESS DISTRICT (CBD) TOLLING PROGRAM

# Appendix 4A.1, Transportation: Implementation of Tolls in the Best Practice Model

2024



Final EA Appendix 4A Table 4A.1-5 Daily Drive-Alone Work-Vehicle Trips by Income Entering the Manhattan CBD (2023) — Adopted Toll Structure Added

INCOME CATEGORY	NO ACTION	SCENARIO A	SCENARIO B	SCENARIO C	SCENARIO D	SCENARIO E	SCENARIO F	SCENARIO G	ADOPTED TOLL STRUCTURE
Lowest Income	5,234	2,614	2,566	2,608	2,652	2,468	2,452	2,517	2,585
	Difference	-2,620	-2,668	-2,626	-2,582	-2,766	-2,782	-2,717	-2,649
	Percentage	-50.1%	-51.0%	-50.2%	-49.3%	-52.8%	-53.2%	-51.9%	-50.6%
Medium Income	209,971	122,856	120,637	118,821	116,793	112,310	114,648	117,643	116,639
	Difference	-87,115	-89,334	-91,150	-93,178	-97,661	-95,323	-92,337	-93,332
	Percentage	-41.5%	-42.5%	-43.4%	-44.4%	-46.5%	-45.4%	-44.0%	-44.4%
Highest Income	111,053	76,074	74,472	72,976	71,215	67,233	69,071	73,252	71,014
	Difference	-34,978	-36,580	-38,077	-39,838	-43,820	-41,982	-37,801	-40,039
	Percentage	-31.5%	-32.9%	-34.3%	-35.9%	-39.5%	-37.8%	-34.0%	-36.1%
TOTAL	326,258	201,545	197,675	194,405	190,659	182,012	186,171	193,403	190,238
	Difference	-124,713	-128,583	-131,853	-135,599	-144,246	-140,087	-132,855	-136,020
	Percentage	-38.2%	-39.4%	-40.4%	-41.6%	-44.2%	-42.9%	-40.7%	-41.7%

Source: Best Practice Model, WSP

CENTRAL BUSINESS DISTRICT (CBD) TOLLING PROGRAM

# Appendix 4C, Transportation: Supporting Documentation for Transit Analyses

2024

2024

4C-1 LINE HAUL SCREENING RESULTS PER SECTOR

Table 4C-1. Projected New Passenger-Trips at Maximum Load Point for Routes Crossing into the Manhattan CBD at the 60th Street Boundary, (2023 AM Peak Period and Hour) with Adopted Toll Structure Added

MODE	FINAL EA (SCENARIO E)		ADOPTED TOLL STRUCTURE	
	Peak Period	Peak Hour	Peak Period	Peak Hour
Subway				
Broadway				
No. 1	892	232	568	148
No. 2	807	210	505	131
No. 3	530	138	259	67
Lexington Avenue				
No. 4	558	145	336	87
No. 5	348	90	321	83
No. 6	870	226	876	228
Eighth Avenue				
A	690	179	402	104
B	387	101	229	60
C	220	57	109	28
D	636	165	432	112
Second Avenue (Q)	603	157	260	68
Commuter Rail (Metro-North Railroad)				
Harlem	722	311	379	163
Hudson	632	272	198	85
New Haven	494	212	1,017	437
Buses				
York Avenue (1 route)	9	2	4	1
Second Avenue (2 routes)	48	12	19	7
Lexington Avenue (4 routes)	38	10	15	5
Fifth Avenue (13 routes)	103	27	36	15
Broadway (4 routes)	29	7	11	4
Columbus Avenue (1 route)	7	2	3	1
West End Avenue (1 route)	8	2	19	7

Source: WSP, Best Practice Model; analysis prepared by WSP and FHI Studio.  
Note: MTA NYCT data was used to analyze maximum load points for bus routes as of 2019.

The tolling scenario used to derive this analysis matches the representative tolling scenario in Table 4C-12.

Table 4C-2. Projected Incremental Ridership Increases at Maximum Load Point for Routes Crossing into the Manhattan CBD at the 60th Street Boundary (2023 AM Peak Hour) with Adopted Toll Structure Added

			FINAL EA (SCENARIO E)				ADOPTED TOLL STRUCTURE			
MODE	SCHEDULED TRAINS		NEW PASSENGER-TRIPS		NEW PASSENGER-TRIPS		NEW PASSENGER-TRIPS		NEW PASSENGER-TRIPS	
	Trips/Hour	Trips/Hour	Peak Period	Peak Hour	Per Train	Per Car	Peak Period	Peak Hour	Per Train	Per Car
Commuter Rail (Metro-North Railroad)										
New Haven	21	8	494	229	10.12	1.26	1,017	437	20.82	2.60

Source: WSP, Best Practice Model; analysis prepared by WSP and FHI Studio.

Note: The tolling scenario used to derive this analysis matches the representative tolling scenario in Table 4C-12.

Table 4C-3. Projected New Passenger-Trips at Maximum Load Point for Routes Crossing into the Manhattan CBD from Queens/Roosevelt Island, (2023 AM Peak Hour) with Adopted Toll Structure Added

MODE	FINAL EA (SCENARIO E)		ADOPTED TOLL STRUCTURE	
	PEAK PERIOD	AM PEAK HOUR	PEAK PERIOD	AM PEAK HOUR
<b>Subway</b>				
60th Street Tunnel (R)	657	171	509	132
60th Street Tunnel				
N	386	100	356	93
W	369	96	348	90
53rd Street Tunnel				
M	1,014	264	772	201
E	876	228	669	174
Steinway Tunnel				
No. 7 (Local)	1,449	377	1,140	296
No. 7 (Express)	600	156	602	157
63rd Street Tunnel (F)	1,073	279	865	225
<b>Commuter Rail (Long Island Rail Road)</b>				
Babylon	808	331	264	108
Far Rockaway	147	60	120	49
Hempstead	127	52	97	40
Long Beach	50	20	67	27
Montauk	18	8	4	1
Oyster Bay	32	13	29	12
Port Jefferson	276	113	105	43
Port Washington	368	151	89	36
Ronkonkoma	232	95	54	22
West Hempstead	0	0	0	0
<b>Buses</b>				
Queens-Midtown Tunnel (33 routes)	94	25	44	11
Ed Koch Queensboro Bridge (3 routes)	41	11	37	13

Source: WSP, Best Practice Model; analysis prepared by WSP and FHI Studio.  
Note: The tolling scenario used to derive this analysis matches the representative tolling scenario in **Table 4C-15**. The projected ridership changes have been rounded to zero (0) for estimates at or below zero, to account for variability/noise in the BPM for lines where existing ridership is already relatively low. MTA NYCT data was used to analyze maximum load points for bus routes as of 2019.

Table 4C-4. Projected New Passenger-Trips at Maximum Load Point for Routes Crossing into the Manhattan CBD from Brooklyn (2023 AM Peak Period and Hour) with Adopted Toll Structure Added

MODE	FINAL EA (SCENARIO E)		ADOPTED TOLL STRUCTURE	
	AM PEAK PERIOD	AM PEAK HOUR	AM PEAK PERIOD	AM PEAK HOUR
<b>Subway</b>				
Clark Street Tunnel				
No. 2	165	43	332	86
No. 3	345	90	285	74
Joralemon Street Tunnel				
No. 4	664	173	613	159
No. 5	588	153	565	147
Cranberry Street Tunnel				
A	859	224	731	190
C	334	87	255	66
Rutgers Street Tunnel (F)	1,033	269	706	184
Canarsie Tunnel (L)	976	254	787	205
Williamsburg Bridge				
J	674	175	582	151
M	502	130	381	99
Manhattan Bridge				
B	616	160	459	119
D	867	226	815	212
N	634	165	610	159
Q	685	178	547	142
Montague Street Tunnel (R)	640	166	561	146
<b>Buses</b>				
Hugh L. Carey Tunnel (6 routes)	45	12	21	5
Williamsburg Bridge (1 route)	0	0	0	0

Source: WSP, Best Practice Model; analysis prepared by WSP and FHI Studio.  
Note: MTA NYCT data was used to analyze maximum load points for bus routes as of 2019. The tolling scenario used to derive this analysis matches the representative tolling scenario in **Table 4C-18**.

Table 4C-5. Projected New Passenger-Trips at Maximum Load Point for Staten Island Express Bus Routes (2023 AM Peak Period and Hour) with Adopted Toll Structure Added

MODE	FINAL EA (SCENARIO E)		ADOPTED TOLL STRUCTURE	
	AM PEAK PERIOD	AM PEAK HOUR	AM PEAK PERIOD	AM PEAK HOUR
Bus				
Staten Island express via Hugh L. Carey Tunnel (16 routes)	447	116	403	105
Staten Island express via Lincoln Tunnel (5 routes)	66	17	37	10

Source: WSP, Best Practice Model; analysis prepared by WSP and FHI Studio.

Note: MTA NYCT data was used to analyze maximum load points for bus routes as of 2019. The tolling scenario used to derive this analysis matches the representative tolling scenario in Table 4C-21.

Table 4C-6. Projected New Passenger-Trips at Maximum Load Point for Routes Crossing into the Manhattan CBD from New Jersey/West of Hudson (2023 AM Peak Period and Peak Hour) with Adopted Toll Structure Added

MODE	FINAL EA (SCENARIO E)		ADOPTED TOLL STRUCTURE	
	AM PEAK PERIOD	AM PEAK HOUR	AM PEAK PERIOD	AM PEAK HOUR
Subway				
PATH (33rd Street)				
Hoboken Line	898	234	513	133
Journal Square Line	657	171	463	120
PATH (World Trade Center)				
Hoboken Line	605	157	327	85
Newark Line	596	155	468	122
Commuter Rail (NJ TRANSIT)*				
Montclair-Boonton Line	305	125	256	110
Morris & Essex Line	273	112	215	92
Northeast Corridor Line	420	172	136	59
North Jersey Coast Line	309	127	102	44
Buses				
Lincoln Tunnel (104 routes)	1,462	380	804	209
Holland Tunnel (13 routes)	91	24	126	33

Source: WSP, Best Practice Model; analysis prepared by WSP and FHI Studio.

Note: The tolling scenario used to derive this analysis matches the representative tolling scenario in Table 4C-23.

\* Metro-North west-of-Hudson commuter trains (Port Jervis, Pascack Valley) transfer at Secaucus Junction to enter the Manhattan CBD and are therefore incorporated into NJ TRANSIT incremental passenger-trips

4C-2 LEVEL OF SERVICE TABLES – NEW YORK CITY

NOTE: Tables are arranged in alphabetical order by station.

Table 4C-7. Final EA (Scenario E): Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Stair Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
QBL M3/S3	Street stair at southeast corner of 21st Street and 44th Drive	5.00	4.00	300	207	94	65	90%	90%	80%	0.34	A
QBL M4/S4	Street stair at northeast corner of 21st Street and 44th Drive	5.00	4.00	481	305	150	95	90%	90%	80%	0.53	B
QBL O6/O7	Street stair at southeast corner of 23rd Street and 44th Drive	10.00	8.50	540	313	169	98	90%	90%	80%	0.27	A
XTN M1/S1	Street stair at northeast corner of Jackson Avenue and Pearson Street	5.00	4.00	52	45	16	14	90%	90%	80%	0.07	A
XTN M3/S3	Street stair at southwest corner of Jackson Avenue and Court Square	5.50	4.50	241	537	75	168	90%	90%	80%	0.48	B
XTN O1/O2	Street stair at northeast corner of Jackson Avenue and 45th Avenue	9.00	7.75	225	294	70	92	90%	90%	80%	0.18	A
O3/O4	Stair in Citicorp Building/One Court Square	9.00	7.75	13	30	4	9	90%	90%	80%	0.02	A
FLU M1/S1	Street stair at southeast corner of Jackson Avenue and 23rd Street	8.00	6.75	162	110	51	34	90%	90%	80%	0.11	A
FLU M2/S2	Street stair at northwest corner of 23rd Street and 45th Road	5.00	4.00	222	151	69	47	90%	90%	80%	0.25	A
QBL P1	Connecting stair between N308 paid zone and Queens-bound E/M platform	14.00	12.75	668	1,288	209	403	90%	80%	75%	0.46	B
QBL P2	Connecting stair between N308 paid zone and Manhattan-bound E/M platform	14.00	12.75	4,343	1,597	1,357	499	90%	80%	75%	1.37	E
QBL P3	Connecting stair between N307 paid zone and Queens-bound E/M platform	11.00	9.75	60	245	19	77	90%	80%	75%	0.10	A
QBL P4	Connecting stair between N307 paid zone and Manhattan-bound E/M platform	11.00	9.75	738	264	231	83	90%	80%	75%	0.30	A
FLU P1/P3	Connecting stair between R508 paid zone and Queens-bound 7 platform	8.00	6.75	732	918	229	287	90%	80%	75%	0.73	C
FLU P2/P4	Connecting stair between R508 paid zone and Manhattan-bound 7 platform	7.50	6.25	1767	2188	552	684	90%	80%	75%	1.90	F+
O3/O4/O5	Connecting stair between 7 train mezzanine and G train mezzanine	7.00	6.00	208	880	65	275	90%	80%	80%	0.52	B
XTN P1	Connecting stair between N400C paid zone and G train platform	8.75	7.50	1,434	335	448	105	90%	80%	75%	0.69	B
XTN P2	Connecting stair between N400 paid zone and G train platform	9.25	8.00	710	1,145	222	358	90%	80%	75%	0.70	B
XTN P3	Connecting stair between N400 paid zone and G train platform	9.25	8.00	657	1,910	205	597	90%	80%	75%	0.97	C
XTN P5	Connecting stair between N400B paid zone and G train platform	7.00	6.00	10	604	3	189	100%	80%	75%	0.28	A
XTN P6	Connecting stair between N400B paid zone and G train platform	9.25	8.00	57	945	18	295	90%	80%	75%	0.39	A
XTN P7	Connecting stair between N400C paid zone and G train platform	9.25	8.00	160	1,006	50	314	90%	80%	75%	0.45	A
QBL M1	Connecting stair between E/M platforms and N308 paid zone	13.00	11.75	4,343	1,597	1,357	499	90%	80%	80%	1.46	E

NOTE: + denotes a significant adverse effect

Table 4C-8. Final EA (Scenario E): Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Escalator Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E265	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	157	0	49	0	750	0.07	A
E266	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	0	324	0	101	750	0.15	A
E461X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	0	1,703	0	532	1,050	0.56	B
E462X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	2,253	0	704	0	1,050	0.74	C

Table 4C-9. Final EA (Scenario E): Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Fare Array Area Analysis (AM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
21st Street and 44th Drive - northeast corner (N307)											
Two-Way Turnstiles	4	1,680	2,580	781	307	244	96	90%	80%	0.21	A
21st Street and 44th Drive – southeast corner (N307A)											
High Exit Only Turnstile	2	0	1,110	0	208	0	65	100%	80%	0.07	A
23rd Street and 44th Road – northeast corner (N308)											
Two-Way Turnstiles	4	1,680	2,580	540	313	169	98	90%	75%	0.17	A
Jackson Avenue and Pearson Street – northeast corner (N400C)											
HEET	2	510	1,080	52	45	16	14	90%	80%	0.05	A
Jackson Avenue and Court Square – southwest corner (N400)											
Two-Way Turnstiles	3	1,260	1,935	241	537	75	168	90%	80%	0.19	A
Jackson Avenue and 45th Avenue – northeast corner (N400B)											
Two-Way Turnstiles	3	1,260	1,935	225	294	70	92	90%	80%	0.13	A
Citicorp Building/One Court Square (N400A)											
Two-Way Turnstiles	7	2,940	4,515	170	354	53	111	90%	80%	0.05	A
Jackson Avenue and 23rd Street – southeast corner (R508)											
Two-Way Turnstiles	6	2,520	3,870	384	261	120	82	90%	80%	0.08	A



Table 4C-10. Final EA (Scenario E): Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Stair Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
QBL M3/S3	Street stair at southeast corner of 21st Street and 44th Drive	5.00	4.00	182	373	57	117	90%	90%	80%	0.39	A
QBL M4/S4	Street stair at northeast corner of 21st Street and 44th Drive	5.00	4.00	442	167	138	52	90%	90%	80%	0.40	A
QBL O6/O7	Street stair at southeast corner of 23rd Street and 44th Drive	10.00	8.50	383	220	120	69	90%	90%	80%	0.19	A
XTN M1/S1	Street stair at northeast corner of Jackson Avenue and Pearson Street	5.00	4.00	52	40	16	13	90%	90%	80%	0.06	A
XTN M3/S3	Street stair at southwest corner of Jackson Avenue and Court Square	5.50	4.50	446	266	139	83	90%	90%	80%	0.43	A
XTN O1/O2	Street stair at northeast corner of Jackson Avenue and 45th Avenue	9.00	7.75	339	110	106	34	90%	90%	80%	0.15	A
O3/O4	Stair in Citicorp Building/One Court Square	9.00	7.75	96	280	30	88	90%	90%	80%	0.14	A
FLU M1/S1	Street stair at southeast corner of Jackson Avenue and 23rd Street	8.00	6.75	398	148	124	46	90%	90%	80%	0.21	A
FLU M2/S2	Street stair at northwest corner of 23rd Street and 45th Road	5.00	4.00	358	170	112	53	90%	90%	80%	0.35	A
QBL P1	Connecting stair between N308 paid zone and Queens-bound E/M platform	14.00	12.75	1,357	1,826	424	571	90%	80%	75%	0.75	C
QBL P2	Connecting stair between N308 paid zone and Manhattan-bound E/M platform	14.00	12.75	1,811	639	566	200	90%	80%	75%	0.57	B
QBL P3	Connecting stair between N307 paid zone and Queens-bound E/M platform	11.00	9.75	215	434	67	136	90%	80%	75%	0.20	A
QBL P4	Connecting stair between N307 paid zone and Manhattan-bound E/M platform	11.00	9.75	414	144	129	45	90%	80%	75%	0.17	A
FLU P1/P3	Connecting stair between R508 paid zone and Queens-bound 7 platform	8.00	6.75	1,865	1,204	583	376	90%	80%	75%	1.35	E
FLU P2/P4	Connecting stair between R508 paid zone and Manhattan-bound 7 platform	7.50	6.25	848	948	265	296	90%	80%	75%	0.86	C
O3/O4/O5	Connecting stair between 7 train mezzanine and G train mezzanine	7.00	6.00	123	459	38	143	90%	80%	80%	0.28	A
XTN P1	Connecting stair between N400C paid zone and G train platform	8.75	7.50	2,415	199	755	62	90%	80%	75%	1.01	D
XTN P2	Connecting stair between N400 paid zone and G train platform	9.25	8.00	1,188	691	371	216	90%	80%	75%	0.70	B
XTN P3	Connecting stair between N400 paid zone and G train platform	9.25	8.00	1,100	1,152	344	360	90%	80%	75%	0.84	C
XTN P5	Connecting stair between N400B paid zone and G train platform	7.00	6.00	17	363	5	113	100%	80%	75%	0.17	A
XTN P6	Connecting stair between N400B paid zone and G train platform	9.25	8.00	96	569	30	178	90%	80%	75%	0.25	A
XTN P7	Connecting stair between N400C paid zone and G train platform	9.25	8.00	268	596	84	186	90%	80%	75%	0.33	A
QBL M1	Connecting stair between E/M platforms and N308 paid zone	13.00	11.75	1,811	639	566	200	90%	80%	80%	0.60	B

Table 4C-11. Final EA (Scenario E): Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Escalator Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E265	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	239	0	75	0	750	0.11	A
E266	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	0	209	0	65	750	0.10	A
E461X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	0	1,824	0	570	1,050	0.60	B
E462X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	1,922	0	601	0	1,050	0.64	B

Table 4C-12. Final EA (Scenario E): Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Fare Array Area Analysis (PM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
21st Street and 44th Drive - northeast corner (N307)											
Two-Way Turnstiles	4	1,680	2,580	624	176	195	55	90%	80%	0.16	A
21st Street and 44th Drive – southeast corner (N307A)											
High Exit Only Turnstile	2	0	1,110	0	394	0	123	100%	80%	0.14	A
23rd Street and 44th Road – northeast corner (N308)											
Two-Way Turnstiles	4	1,680	2,580	383	220	120	69	90%	75%	0.12	A
Jackson Avenue and Pearson Street – northeast corner (N400C)											
HEET	2	510	1,080	52	40	16	13	90%	80%	0.05	A
Jackson Avenue and Court Square – southwest corner (N400)											
Two-Way Turnstiles	3	1,260	1,935	446	288	139	90	90%	80%	0.19	A
Jackson Avenue and 45th Avenue – northeast corner (N400B)											
Two-Way Turnstiles	3	1,260	1,935	339	110	106	34	90%	80%	0.12	A
Citicorp Building/One Court Square (N400A)											
Two-Way Turnstiles	7	2,940	4,515	334	489	104	153	90%	80%	0.09	A
Jackson Avenue and 23rd Street – southeast corner (R508)											
Two-Way Turnstiles	6	2,520	3,870	756	318	236	99	90%	80%	0.14	A

Table 4C-13. Adopted Toll Structure: Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Stair Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
QBL M3/S3	Street stair at southeast corner of 21st Street and 44th Drive	5.00	4.00	298	208	93	65	90%	90%	80%	0.34	A
QBL M4/S4	Street stair at northeast corner of 21st Street and 44th Drive	5.00	4.00	478	306	149	96	90%	90%	80%	0.53	B
QBL O6/O7	Street stair at southeast corner of 23rd Street and 44th Drive	10.00	8.50	538	314	168	98	90%	90%	80%	0.27	A
XTN M1/S1	Street stair at northeast corner of Jackson Avenue and Pearson Street	5.00	4.00	52	46	16	14	90%	90%	80%	0.07	A
XTN M3/S3	Street stair at southwest corner of Jackson Avenue and Court Square	5.50	4.50	240	540	75	169	90%	90%	80%	0.48	B
XTN O1/O2	Street stair at northeast corner of Jackson Avenue and 45th Avenue	9.00	7.75	224	296	70	93	90%	90%	80%	0.19	A
O3/O4	Stair in Citicorp Building/One Court Square	9.00	7.75	13	30	4	9	90%	90%	80%	0.02	A
FLU M1/S1	Street stair at southeast corner of Jackson Avenue and 23rd Street	8.00	6.75	161	110	50	34	90%	90%	80%	0.11	A
FLU M2/S2	Street stair at northwest corner of 23rd Street and 45th Road	5.00	4.00	221	152	69	48	90%	90%	80%	0.25	A
QBL P1	Connecting stair between N308 paid zone and Queens-bound E/M platform	14.00	12.75	663	1294	207	404	90%	80%	75%	0.46	B
QBL P2	Connecting stair between N308 paid zone and Manhattan-bound E/M platform	14.00	12.75	4328	1598	1,353	499	90%	80%	75%	1.37	E
QBL P3	Connecting stair between N307 paid zone and Queens-bound E/M platform	11.00	9.75	60	248	19	78	90%	80%	75%	0.10	A
QBL P4	Connecting stair between N307 paid zone and Manhattan-bound E/M platform	11.00	9.75	734	263	229	82	90%	80%	75%	0.30	A
FLU P1/P3	Connecting stair between R508 paid zone and Queens-bound 7 platform	8.00	6.75	730	914	228	286	90%	80%	75%	0.73	C
FLU P2/P4	Connecting stair between R508 paid zone and Manhattan-bound 7 platform	7.50	6.25	1753	2194	548	686	90%	80%	75%	1.90	F+
O3/O4/O5	Connecting stair between 7 train mezzanine and G train mezzanine	7.00	6.00	208	876	65	274	90%	80%	80%	0.52	B
XTN P1	Connecting stair between N400C paid zone and G train platform	8.75	7.50	1450	334	453	104	90%	80%	75%	0.70	B
XTN P2	Connecting stair between N400 paid zone and G train platform	9.25	8.00	714	1144	223	358	90%	80%	75%	0.70	C
XTN P3	Connecting stair between N400 paid zone and G train platform	9.25	8.00	661	1909	207	597	90%	80%	75%	0.98	C
XTN P5	Connecting stair between N400B paid zone and G train platform	7.00	6.00	10	604	3	189	100%	80%	75%	0.28	A
XTN P6	Connecting stair between N400B paid zone and G train platform	9.25	8.00	58	944	18	295	90%	80%	75%	0.39	A
XTN P7	Connecting stair between N400C paid zone and G train platform	9.25	8.00	162	1004	51	314	90%	80%	75%	0.45	A
QBL M1	Connecting stair between E/M platforms and N308 paid zone	13.00	11.75	4328	1598	1,353	499	90%	80%	80%	1.46	E

NOTE: + denotes a significant adverse effect

Table 4C-14. Adopted Toll Structure: Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Escalator Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E265	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	157	0	49	0	750	0.07	A
E266	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	0	325	0	102	750	0.15	A
E461X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	0	1694	0	529	1,050	0.56	B
E462X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	2254	0	704	0	1,050	0.74	C

Table 4C-15. Adopted Toll Structure Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Fare Array Area Analysis (AM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
21st Street and 44th Drive - northeast corner (N307)											
Two-Way Turnstiles	4	1,680	2,580	777	308	243	96	0.90	0.80	0.21	A
21st Street and 44th Drive – southeast corner (N307A)											
High Exit Only Turnstile	2	0	1,110	0	209	0	65	1.00	0.80	0.07	A
23rd Street and 44th Road – northeast corner (N308)											
Two-Way Turnstiles	4	1,680	2,580	538	314	168	98	0.90	0.75	0.17	A
Jackson Avenue and Pearson Street – northeast corner (N400C)											
HEET	2	510	1,080	52	46	16	14	0.90	0.80	0.05	A
Jackson Avenue and Court Square – southwest corner (N400)											
Two-Way Turnstiles	3	1,260	1,935	240	540	75	169	0.90	0.80	0.19	A
Jackson Avenue and 45th Avenue – northeast corner (N400B)											
Two-Way Turnstiles	3	1,260	1,935	224	296	70	93	0.90	0.80	0.13	A
Citicorp Building/One Court Square (N400A)											
Two-Way Turnstiles	7	2,940	4,515	169	355	53	111	0.90	0.80	0.05	A
Jackson Avenue and 23rd Street – southeast corner (R508)											
Two-Way Turnstiles	6	2,520	3,870	382	262	119	82	0.90	0.80	0.08	A

Table 4C-16. Adopted Toll Structure: Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Stair Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
QBL M3/S3	Street stair at southeast corner of 21st Street and 44th Drive	5.00	4.00	183	372	57	116	90%	90%	80%	0.39	A
QBL M4/S4	Street stair at northeast corner of 21st Street and 44th Drive	5.00	4.00	444	167	139	52	90%	90%	80%	0.41	A
QBL O6/O7	Street stair at southeast corner of 23rd Street and 44th Drive	10.00	8.50	384	218	120	68	90%	90%	80%	0.19	A
XTN M1/S1	Street stair at northeast corner of Jackson Avenue and Pearson Street	5.00	4.00	53	40	17	13	90%	90%	80%	0.07	A
XTN M3/S3	Street stair at southwest corner of Jackson Avenue and Court Square	5.50	4.50	448	266	140	83	90%	90%	80%	0.43	A
XTN O1/O2	Street stair at northeast corner of Jackson Avenue and 45th Avenue	9.00	7.75	341	110	107	34	90%	90%	80%	0.15	A
O3/O4	Stair in Citicorp Building/One Court Square	9.00	7.75	96	278	30	87	90%	90%	80%	0.14	A
FLU M1/S1	Street stair at southeast corner of Jackson Avenue and 23rd Street	8.00	6.75	399	147	125	46	90%	90%	80%	0.22	A
FLU M2/S2	Street stair at northwest corner of 23rd Street and 45th Road	5.00	4.00	360	169	113	53	90%	90%	80%	0.36	A
QBL P1	Connecting stair between N308 paid zone and Queens-bound E/M platform	14.00	12.75	1321	1868	413	584	90%	80%	75%	0.75	C
QBL P2	Connecting stair between N308 paid zone and Manhattan-bound E/M platform	14.00	12.75	1734	647	542	202	90%	80%	75%	0.55	B
QBL P3	Connecting stair between N307 paid zone and Queens-bound E/M platform	11.00	9.75	216	449	68	140	90%	80%	75%	0.21	A
QBL P4	Connecting stair between N307 paid zone and Manhattan-bound E/M platform	11.00	9.75	417	124	130	39	90%	80%	75%	0.16	A
FLU P1/P3	Connecting stair between R508 paid zone and Queens-bound 7 platform	8.00	6.75	1864	1155	583	361	90%	80%	75%	1.33	D
FLU P2/P4	Connecting stair between R508 paid zone and Manhattan-bound 7 platform	7.50	6.25	839	896	262	280	90%	80%	75%	0.83	C
O3/O4/O5	Connecting stair between 7 train mezzanine and G train mezzanine	7.00	6.00	115	455	36	142	90%	80%	80%	0.27	A
XTN P1	Connecting stair between N400C paid zone and G train platform	8.75	7.50	2430	199	759	62	90%	80%	75%	1.02	D
XTN P2	Connecting stair between N400 paid zone and G train platform	9.25	8.00	1194	677	373	212	90%	80%	75%	0.69	B
XTN P3	Connecting stair between N400 paid zone and G train platform	9.25	8.00	1105	1129	345	353	90%	80%	75%	0.84	C
XTN P5	Connecting stair between N400B paid zone and G train platform	7.00	6.00	17	356	5	111	100%	80%	75%	0.17	A
XTN P6	Connecting stair between N400B paid zone and G train platform	9.25	8.00	97	558	30	174	90%	80%	75%	0.25	A
XTN P7	Connecting stair between N400C paid zone and G train platform	9.25	8.00	270	595	84	186	90%	80%	75%	0.33	A
QBL M1	Connecting stair between E/M platforms and N308 paid zone	13.00	11.75	1734	647	542	202	90%	80%	80%	0.59	B

Table 4C-17. Adopted Toll Structure: Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Escalator Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E265	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	240	0	75	0	750	0.11	A
E266	Exiting Escalator below Citicorp Building/One Court Square	1	32	90%	0	207	0	65	750	0.10	A
E461X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	0	1816	0	568	1,050	0.60	B
E462X	Connecting escalator between 7 train mezzanine and G train mezzanine	1	40	90%	1831	0	572	0	1,050	0.61	B

Table 4C-18. Adopted Toll Structure: Court Square-23rd Street Station (E, M, G, and No. 7 lines) – Fare Array Area Analysis (PM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
21st Street and 44th Drive - northeast corner (N307)											
Two-Way Turnstiles	4	1,680	2,580	627	175	196	55	0.90	0.80	0.16	A
21st Street and 44th Drive – southeast corner (N307A)											
High Exit Only Turnstile	2	0	1,110	0	391	0	122	1.00	0.80	0.14	A
23rd Street and 44th Road – northeast corner (N308)											
Two-Way Turnstiles	4	1,680	2,580	384	218	120	68	0.90	0.75	0.12	A
Jackson Avenue and Pearson Street – northeast corner (N400C)											
HEET	2	510	1,080	53	40	17	13	0.90	0.80	0.05	A
Jackson Avenue and Court Square – southwest corner (N400)											
Two-Way Turnstiles	3	1,260	1,935	448	286	140	89	0.90	0.80	0.19	A
Jackson Avenue and 45th Avenue – northeast corner (N400B)											
Two-Way Turnstiles	3	1,260	1,935	341	110	107	34	0.90	0.80	0.12	A
Citicorp Building/One Court Square (N400A)											
Two-Way Turnstiles	7	2,940	4,515	336	486	105	152	0.90	0.80	0.09	A
Jackson Avenue and 23rd Street – southeast corner (R508)											
Two-Way Turnstiles	6	2,520	3,870	759	316	237	99	0.90	0.80	0.14	A

Table 4C-19. Final EA (Scenario E): Main Street- Flushing Station (No. 7 line) – Stair Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
S6/M6	Street stair at northwest corner of Roosevelt Avenue and Main Street	6.00	5.00	2225	692	695	216	90%	90%	80%	1.54	E
S4/M4	Street stair at northeast corner of Roosevelt Avenue and Main Street	5.00	4.00	1,241	442	388	138	90%	100%	80%	1.04	D
S7/M7	Street stair at southwest corner of Roosevelt Avenue and Main Street	5.00	4.00	817	805	255	252	90%	80%	80%	1.17	D
S3	Street stair at southeast corner of Roosevelt Avenue and Main Street	5.00	4.00	143	88	45	28	90%	100%	80%	0.15	A
S5	Street stair at southeast corner of Roosevelt Avenue and Main Street	4.80	3.80	1,977	355	618	111	90%	80%	80%	1.78	F
M3/M5	Street stair at southeast corner of Roosevelt Avenue and Main Street	11.50	10.25	2,119	442	662	138	90%	90%	80%	0.66	B
M11	Street stair on south side of Roosevelt Avenue between Main Street and Union Street	10.00	8.75	562	8	176	3	100%	80%	75%	0.17	A
P11	Connecting stair between platform and R533 paid zone west	4.25	3.25	2,423	442	757	138	90%	80%	75%	2.58	F
P12	Connecting stair between platform and R533 paid zone west	4.25	3.25	532	264	166	83	90%	80%	75%	0.73	C
P15	Connecting stair between platform and R533 paid zone west	4.25	3.25	1,113	294	348	92	90%	80%	75%	1.27	D
P16	Connecting stair between platform and R533 paid zone west	4.25	3.25	82	191	26	60	90%	80%	75%	0.26	A
P3	Connecting stair between platform and R533 paid zone east	4.25	3.25	146	315	46	98	90%	80%	75%	0.43	A
P4	Connecting stair between platform and R533 paid zone east	4.25	3.25	24	194	8	61	90%	80%	75%	0.21	A
P5/P7	Connecting stair between platform and R533 paid zone east	4.25	3.25	1,902	424	594	133	90%	80%	75%	2.10	F
P6/P8	Connecting stair between platform and R533 paid zone east	4.25	3.25	207	256	65	80	90%	80%	75%	0.43	A



Table 4C-20. Final EA (Scenario E): Main Street- Flushing Station (No. 7 line) – Escalator Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E455	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	899	0	281	1,050	0.36	A
E456	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	3,040	0	950	0	1,050	1.21	D+
E457	Street escalator at south side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	393	0	123	1,050	0.16	A
NOTE: + denotes a significant adverse effect											

Table 4C-21. Final EA (Scenario E): Main Street- Flushing Station (No. 7 line) – Fare Array Area Analysis (AM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
Main Street and Roosevelt Avenue (R533-West)											
Two-Way Turnstiles	8	3,360	5,160	4,149	1,191	1,297	372	90%	80%	0.53	B
Main Street and Roosevelt Avenue (R533-East)											
Two-Way Turnstiles	8	3,360	5,160	2,254	1,189	704	372	90%	80%	0.33	A
Roosevelt Avenue between Main Street and Union Street (R534)											
Two-Way Turnstiles	9	3,780	5,805	3,603	1,301	1,126	407	90%	75%	0.43	A

Table 4C-22. Final EA (Scenario E): Main Street- Flushing Station (No. 7 line) – Stair Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
S6/M6	Street stair at northwest corner of Roosevelt Avenue and Main Street	6.00	5.00	820	1,507	256	471	90%	90%	80%	1.29	D
S4/M4	Street stair at northeast corner of Roosevelt Avenue and Main Street	5.00	4.00	615	891	192	278	90%	100%	80%	1.00	C
S7/M7	Street stair at southwest corner of Roosevelt Avenue and Main Street	5.00	4.00	497	1,495	155	467	90%	80%	80%	1.44	E
S3	Street stair at southeast corner of Roosevelt Avenue and Main Street	5.00	4.00	249	613	78	192	90%	100%	80%	0.59	B
S5	Street stair at southeast corner of Roosevelt Avenue and Main Street	4.80	3.80	592	1,273	185	398	90%	80%	80%	1.42	E
M3/M5	Street stair at southeast corner of Roosevelt Avenue and Main Street	11.50	10.25	841	1,886	263	589	90%	90%	80%	0.74	C
M11	Street stair on south side of Roosevelt Avenue between Main Street and Union Street	10.00	8.75	73	69	23	22	90%	80%	75%	0.05	A
P11	Connecting stair between platform and R533 paid zone west	4.25	3.25	476	619	149	193	90%	80%	75%	1.01	D
P12	Connecting stair between platform and R533 paid zone west	4.25	3.25	1,085	984	339	308	90%	80%	75%	1.90	F
P15	Connecting stair between platform and R533 paid zone west	4.25	3.25	39	680	12	213	100%	80%	75%	0.61	B
P16	Connecting stair between platform and R533 paid zone west	4.25	3.25	124	867	39	271	90%	80%	75%	0.93	C
P3	Connecting stair between platform and R533 paid zone east	4.25	3.25	35	525	11	164	90%	80%	75%	0.53	B
P4	Connecting stair between platform and R533 paid zone east	4.25	3.25	25	809	8	253	100%	80%	75%	0.71	C
P5/P7	Connecting stair between platform and R533 paid zone east	4.25	3.25	348	538	109	168	90%	80%	75%	0.82	C
P6/P8	Connecting stair between platform and R533 paid zone east	4.25	3.25	633	756	198	236	90%	80%	75%	1.28	D

Table 4C-23. Final EA (Scenario E): Main Street- Flushing Station (No. 7 line) – Escalator Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E455	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	1,362	0	426	1,050	0.54	B
E456	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	706	0	221	0	1,050	0.28	A
E457	Street escalator at south side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	1,562	0	488	1,050	0.62	B

Table 4C-24. Final EA (Scenario E): Main Street- Flushing Station (No. 7 line) – Fare Array Area Analysis (PM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
Main Street and Roosevelt Avenue (R533-West)											
Two-Way Turnstiles	8	3,360	5,160	1,724	3,150	539	984	90%	80%	0.44	A
Main Street and Roosevelt Avenue (R533-East)											
Two-Way Turnstiles	8	3,360	5,160	1,048	2,629	328	822	90%	80%	0.33	A
Roosevelt Avenue between Main Street and Union Street (R534)											
Two-Way Turnstiles	9	3,780	5,805	778	2,993	243	935	90%	75%	0.31	A

Table 4C-25. Adopted Toll Structure: Main Street- Flushing Station (No. 7 line) – Stair Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
S6/M6	Street stair at northwest corner of Roosevelt Avenue and Main Street	6.00	5.00	2228	694	696	217	90%	90%	80%	1.55	E
S4/M4	Street stair at northeast corner of Roosevelt Avenue and Main Street	5.00	4.00	1,243	444	388	139	90%	100%	80%	1.04	D
S7/M7	Street stair at southwest corner of Roosevelt Avenue and Main Street	5.00	4.00	818	807	256	252	90%	80%	80%	1.18	D
S3	Street stair at southeast corner of Roosevelt Avenue and Main Street	5.00	4.00	143	88	45	28	90%	100%	80%	0.15	A
S5	Street stair at southeast corner of Roosevelt Avenue and Main Street	4.80	3.80	1,980	355	619	111	90%	80%	80%	1.78	F
M3/M5	Street stair at southeast corner of Roosevelt Avenue and Main Street	11.50	10.25	2,122	444	663	139	90%	90%	80%	0.66	B
M11	Street stair on south side of Roosevelt Avenue between Main Street and Union Street	10.00	8.75	563	8	176	3	100%	80%	75%	0.17	A
P11	Connecting stair between platform and R533 paid zone west	4.25	3.25	2,426	444	758	139	90%	80%	75%	2.58	F
P12	Connecting stair between platform and R533 paid zone west	4.25	3.25	533	264	167	83	90%	80%	75%	0.73	C
P15	Connecting stair between platform and R533 paid zone west	4.25	3.25	1,114	295	348	92	90%	80%	75%	1.27	D
P16	Connecting stair between platform and R533 paid zone west	4.25	3.25	82	192	26	60	90%	80%	75%	0.26	A
P3	Connecting stair between platform and R533 paid zone east	4.25	3.25	147	316	46	99	90%	80%	75%	0.43	A
P4	Connecting stair between platform and R533 paid zone east	4.25	3.25	24	195	8	61	90%	80%	75%	0.21	A
P5/P7	Connecting stair between platform and R533 paid zone east	4.25	3.25	1,906	425	596	133	90%	80%	75%	2.10	F
P6/P8	Connecting stair between platform and R533 paid zone east	4.25	3.25	208	257	65	80	90%	80%	75%	0.43	A



Table 4C-26. Adopted Toll Structure: Main Street- Flushing Station (No. 7 line) – Escalator Analysis (AM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E455	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	901	0	282	1,050	0.36	A
E456	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	3045	0	952	0	1,050	1.21	D+
E457	Street escalator at south side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	394	0	123	1,050	0.16	A
NOTE: + denotes a significant adverse effect											

Table 4C-27. Adopted Toll Structure: Main Street- Flushing Station (No. 7 line) – Fare Array Area Analysis (AM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
Main Street and Roosevelt Avenue (R533-West)											
Two-Way Turnstiles	8	3,360	5,160	4,155	1,194	1,298	373	0.90	0.80	0.53	B
Main Street and Roosevelt Avenue (R533-East)											
Two-Way Turnstiles	8	3,360	5,160	2,257	1,192	705	373	0.90	0.80	0.33	A
Roosevelt Avenue between Main Street and Union Street (R534)											
Two-Way Turnstiles	9	3,780	5,805	3,608	1,304	1,128	408	0.90	0.75	0.44	A

Table 4C-28. Adopted Toll Structure: Main Street- Flushing Station (No. 7 line) – Stair Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	ACTUAL WIDTH (FT)	EFFECTIVE WIDTH (FT)	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR		V/C RATIO	LOS
				In to Station	Out from Station	In to Station	Out from Station		In to Station	Out from Station		
S6/M6	Street stair at northwest corner of Roosevelt Avenue and Main Street	6.00	5.00	823	1,510	257	472	90%	90%	80%	1.30	D
S4/M4	Street stair at northeast corner of Roosevelt Avenue and Main Street	5.00	4.00	616	893	193	279	90%	100%	80%	1.00	D
S7/M7	Street stair at southwest corner of Roosevelt Avenue and Main Street	5.00	4.00	498	1,498	156	468	90%	80%	80%	1.44	E
S3	Street stair at southeast corner of Roosevelt Avenue and Main Street	5.00	4.00	250	614	78	192	90%	100%	80%	0.59	B
S5	Street stair at southeast corner of Roosevelt Avenue and Main Street	4.80	3.80	594	1,275	186	398	90%	80%	80%	1.42	E
M3/M5	Street stair at southeast corner of Roosevelt Avenue and Main Street	11.50	10.25	843	1,889	263	590	90%	90%	80%	0.74	C
M11	Street stair on south side of Roosevelt Avenue between Main Street and Union Street	10.00	8.75	73	69	23	22	90%	80%	75%	0.05	A
P11	Connecting stair between platform and R533 paid zone west	4.25	3.25	478	620	149	194	90%	80%	75%	1.01	D
P12	Connecting stair between platform and R533 paid zone west	4.25	3.25	1,088	986	340	308	90%	80%	75%	1.90	F
P15	Connecting stair between platform and R533 paid zone west	4.25	3.25	39	682	12	213	100%	80%	75%	0.61	B
P16	Connecting stair between platform and R533 paid zone west	4.25	3.25	124	868	39	271	90%	80%	75%	0.93	C
P3	Connecting stair between platform and R533 paid zone east	4.25	3.25	35	526	11	164	90%	80%	75%	0.53	B
P4	Connecting stair between platform and R533 paid zone east	4.25	3.25	26	811	8	253	100%	80%	75%	0.71	C
P5/P7	Connecting stair between platform and R533 paid zone east	4.25	3.25	349	539	109	168	90%	80%	75%	0.82	C
P6/P8	Connecting stair between platform and R533 paid zone east	4.25	3.25	635	758	198	237	90%	80%	75%	1.28	D

Table 4C-29. Adopted Toll Structure: Main Street- Flushing Station (No. 7 line) – Escalator Analysis (PM Peak Hour)

SUBWAY STAIR	LOCATION	QUANTITY	TREAD WIDTH (IN)	SURGE FACTOR	PEAK-HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		PEAK 15-MINUTE CAPACITY (WITHOUT SURGING FACTOR)	V/C RATIO	LOS
					In to Station	Out from Station	In to Station	Out from Station			
E455	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	1364	0	426	1,050	0.54	B
E456	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	708	0	221	0	1,050	0.28	A
E457	Street escalator at south side of Roosevelt Avenue between Main Street and Union Street	1	40	75%	0	1565	0	489	1,050	0.62	B

Table 4C-30. Adopted Toll Structure: Main Street- Flushing Station (No. 7 line) – Fare Array Area Analysis (PM Peak Hour)

FARE ARRAY ELEMENT	QUANTITY	CAPACITY		PEAK HOUR VOLUMES		PEAK 15-MINUTE VOLUMES		FRICTION FACTOR	SURGE FACTOR (OUT)	V/C RATIO	LOS
		In to Station	Out from Station	In to Station	Out from Station	In to Station	Out from Station				
Main Street and Roosevelt Avenue (R533-West)											
Two-Way Turnstiles	8	3,360	5,160	1,729	3,156	540	986	0.90	0.80	0.44	A
Main Street and Roosevelt Avenue (R533-East)											
Two-Way Turnstiles	8	3,360	5,160	1,051	2,633	328	823	0.90	0.80	0.33	A
Roosevelt Avenue between Main Street and Union Street (R534)											
Two-Way Turnstiles	9	3,780	5,805	781	2,998	244	937	0.90	0.75	0.31	A

Table 4C-31. Final EA (Scenario E): Level of Service Summary with and without Project Improvements

The two (2) vertical circulation elements in this table are modeled to meet CEQR thresholds for significant adverse effects under the most conservative tolling scenario.

ELEMENT	LOCATION	STAIR EFFECTIVE WIDTH / ESCALATOR TREAD WIDTH	PROJECT IMPROVEMENT	AM PEAK HOUR			PM PEAK HOUR		
				No Action v/c (LOS)	With Action v/c (LOS)	With Action With Improvements v/c (LOS)	No Action v/c (LOS)	With Action v/c (LOS)	With Action With Improvements v/c (LOS)
Court Square-23rd Street Station (E, M, G, and No. 7 lines)									
FLU P2/P4	Connecting stair between R508 paid zone and Manhattan-bound No. 7 line platform	6.25 feet	Add new 5-foot-wide platform stair on north end of Manhattan-bound No. 7 line platform	1.84 (F)	1.90 (F)	1.56 (E)	No Adverse Effects		
NEW FLU plat stair	New connecting stair between new fare control area and Manhattan-bound No. 7 line platform	4 feet	New platform stair on north end of Manhattan-bound No. 7 line platform	N/A	N/A	0.53 (B)	N/A	N/A	0.44 (A)
Main Street Flushing Station (No. 7 line)									
E456	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	40 inches	Raise escalator speed to 120 fpm	1.18 (D)	1.21 (D)	1.08 (D)	No Adverse Effects		

Table 4C-32. Adopted Toll Structure: Level of Service Summary with and without Project Improvements

The two (2) vertical circulation elements in this table are modeled to meet CEQR thresholds for significant adverse effects.

ELEMENT	LOCATION	STAIR EFFECTIVE WIDTH / ESCALATOR TREAD WIDTH	PROJECT IMPROVEMENT	AM PEAK HOUR			PM PEAK HOUR		
				No Action v/c (LOS)	With Action v/c (LOS)	With Action With Improvements v/c (LOS)	No Action v/c (LOS)	With Action v/c (LOS)	With Action With Improvements v/c (LOS)
Court Square-23rd Street Station (E, M, G, and No. 7 lines)									
FLU P2/P4	Connecting stair between R508 paid zone and Manhattan-bound No. 7 line platform	6.25 feet	Add new 5-foot-wide platform stair on north end of Manhattan-bound No. 7 line platform	1.84 (F)	1.90 (F)	1.56 (E)	No Adverse Effects		
NEW FLU plat stair	New connecting stair between new fare control area and Manhattan-bound No. 7 line platform	4 feet	New platform stair on north end of Manhattan-bound No. 7 line platform	N/A	N/A	0.53 (B)	N/A	N/A	0.43 (A)
Main Street Flushing Station (No. 7 line)									
E456	Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	40 inches	Raise escalator speed to 120 fpm	1.18 (D)	1.21 (D)	1.08 (D)	No Adverse Effects		



# CENTRAL BUSINESS DISTRICT (CBD) TOLLING PROGRAM REEVALUATION

May 2024

Federal Lead Agency



U.S. Department  
of Transportation

Federal Highway  
Administration

Co-Sponsors



Department of  
Transportation



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# Abbreviations, Acronyms, and Initialisms

AADT .....	Annual Average Daily Traffic
AASHTO .....	Association of State Highway and Transportation Officials
ACM .....	Asbestos-Containing Materials
ACS .....	American Community Survey
ADA .....	Americans with Disabilities Act
APE .....	Area of Potential Effects
ATR .....	Automatic Traffic Recorder
AVE .....	Area of Visual Effect
BID .....	Central Business District
BPM .....	Best Practice Model
BQE .....	Brooklyn-Queens Expressway
Btu .....	British thermal units
CAA .....	Clean Air Act
CBD .....	Central Business District
CDC .....	Centers for Disease Control and Prevention
CEQR .....	City Environmental Quality Review
CFR .....	Code of Federal Regulations
CH <sub>4</sub> .....	Methane
CHASP .....	Construction Health and Safety Plan
CMAQ .....	Congestion Mitigation and Air Quality Improvement Program
CO .....	Carbon Monoxide
CO <sub>2</sub> .....	Carbon Dioxide
CO <sub>2</sub> e .....	CO <sub>2</sub> Equivalents
CRIS .....	Cultural Resource Information System
CRP .....	Carbon Reduction Program
CTPP .....	Census Transportation Planning Package
dB(A) .....	A-weighted decibels
DMV .....	New York City Department of Motor Vehicles
DOHMH .....	New York City Department of Health and Mental Hygiene
EA .....	Environmental Assessment
ECL .....	Environmental Conservation Law
EFH .....	Essential Fish Habitat
EIS .....	Environmental Impact Statement
EJCG .....	Environmental Justice Community Group
EPA .....	U.S. Environmental Protection Agency
ESA .....	Endangered Species Act
ESA .....	East Side Access
FCA .....	Fare Control Area
FDR Drive .....	Franklin D. Roosevelt Drive
FHV .....	For-Hire Vehicle
FHWA .....	Federal Highway Administration
FONSI .....	Finding of No Significant Impact
fpm .....	feet per minute
GHG .....	Greenhouse Gas

GWBBBS .....	George Washington Bridge Bus Station
GWP .....	Global Warming Potential
HCS .....	Highway Capacity Software
HEI .....	Health Effects Institute
HEET .....	High Entry/Exit Turnstile
HOT .....	High-Occupancy Toll
HOV .....	High-Occupancy Vehicle
HVFHS .....	high-volume for-hire services
JFK Airport .....	John F. Kennedy Airport
L .....	left turn
LEP .....	Limited English Proficiency
LIRR .....	Long Island Rail Road
LN .....	Late Night
LOS .....	Level of Service
LPC .....	New York City Landmarks Preservation Commission
LWCFA .....	Land and Water Conservation Fund Act
MD .....	Midday
Metro-North or MNR .....	Metro-North Railroad
MOU .....	Memorandum of Understanding
MOVES .....	(USEPA) Motor Vehicle Emission Simulator
mph .....	miles per hour
MPO .....	Metropolitan Planning Organization
MSAT .....	Mobile Source Air Toxics
MTA .....	Metropolitan Transportation Authority
N <sub>2</sub> O .....	Nitrous Oxide
NAACP .....	National Association of the Advancement of Colored People
NAAQS .....	National Ambient Air Quality Standards
NAICS .....	North American Industry Classification System
NATA .....	National Air Toxics Assessment
NB .....	northbound (traffic)
NBL .....	northbound left turn (traffic)
NBT .....	northbound through (traffic)
NEPA .....	National Environmental Policy Act
NHL .....	National Historic Landmark
NHPA .....	National Historic Preservation Act
NICE .....	Nassau Inter-County Express
NJT or NJ TRANSIT .....	New Jersey Transit Corporation
NJTPA .....	North Jersey Transportation Planning Authority
NMFS .....	National Marine Fisheries Service
NO <sub>2</sub> .....	Nitrogen Dioxide
NO <sub>x</sub> .....	Nitrogen Oxides
NPS .....	National Park Service
NR .....	National Register of Historic Places
NRHP .....	National Register of Historic Places
NTP .....	Non-Toll Pricing
NWI .....	National Wetlands Inventory
NYC .....	New York City
NYC Parks .....	New York City Department of Parks and Recreation



NYCCAS .....	New York City Community Air Survey
NYCDCP .....	New York City Department of City Planning
NYCDOE .....	New York City Department of Education
NYCDOT .....	New York City Department of Transportation
NYCHD .....	New York City Historic District
NYCL .....	New York City Landmark and New York City Scenic Landmark
NYCRR .....	New York Codes, Rules, and Regulations
NYCT .....	New York City Transit
NYC TLC .....	New York City Traffic and Limousine Commission
NYMTC .....	New York Metropolitan Transportation Council
NYPD .....	New York City Police Department
NYSDEC .....	New York State Department of Environmental Conservation
NYS DOP .....	New York Statewide Digital Orthoimagery Program
NYS DOT .....	New York State Department of Transportation
NYS DTF .....	New York State Department of Taxation and Finance
O <sub>3</sub> .....	Ozone
OSHA .....	Occupational Safety and Health Administration
PABT .....	Port Authority Bus Terminal
PAH .....	Polycyclic Aromatic Hydrocarbon
PANYNJ .....	Port Authority of New York and New Jersey
PATH .....	Port Authority Trans-Hudson
Pb .....	Lead
pc/mi/ln .....	passenger cars per mile per lane (density)
PCB .....	Polychlorinated Biphenyl
PCE .....	Passenger Car Equivalent
PFAC .....	Program, Finance and Administration Committee
PM <sub>2.5</sub> and PM <sub>10</sub> .....	Particulate Matter (2.5 microns and 10 microns)
ppb .....	parts per billion
ppm .....	parts per million
R .....	right turn (traffic)
RCNY .....	Rules of the City of New York
RFK Bridge .....	Robert F. Kennedy Bridge
SAPA .....	New York State Administrative Procedure Act
SB .....	southbound (traffic)
SBR .....	southbound right turn (traffic)
SBS .....	Select Bus Service
SBT .....	southbound through (traffic)
SBWG .....	Small Business Working Group
SEQRA .....	State Environmental Quality Review Act
SFP .....	Square Feet per Pedestrian
SHPO .....	State Historic Preservation Office
SIE .....	Staten Island Expressway
SIP .....	State Implementation Plan
SO <sub>2</sub> .....	Sulfur Dioxide
SOC .....	Standard Occupational Classification
T .....	through (traffic)
TAZ .....	Traffic Analysis Zones
TBTA .....	Triborough Bridge and Tunnel Authority

TDM .....	Transportation Demand Management
TEM.....	The Environmental Manual
TIP.....	Transportation Improvement Program
Title VI.....	Title VI of the Civil Rights Act of 1964
TLC.....	New York City Taxi and Limousine Commission
TMRB .....	Traffic Mobility Review Board
TR .....	through right turn (traffic)
NICE.....	Nassau Inter-County Express
TNM .....	FHWA’s Traffic Noise Model
TRU .....	transport refrigeration unit
UHF.....	United Hospital Fund
UPARRA .....	Urban Park and Recreation Recovery Act
USACE.....	U.S. Army Corps of Engineers
USC .....	United States Code
USDOT.....	U.S. Department of Transportation
USEPA .....	U.S. Environmental Protection Agency
USFWS.....	U.S. Fish and Wildlife Service
v/c ratio .....	volume-to-capacity ratio
VCE .....	Vertical Circulation Element
VIA.....	Visual Impact Assessment
VMT.....	Vehicle-Miles Traveled
VOC .....	Volatile Organic Compound
VPH .....	vehicles per hour
VPPP .....	Value Pricing Pilot Program
XBL.....	Exclusive Bus Lane
WB .....	westbound (traffic)
WBL.....	westbound left turn (traffic)
WSP .....	WSP Global Inc.
WBR .....	westbound right turn (traffic)
WBT.....	westbound through (traffic)
µg/m <sup>3</sup> .....	micrograms per cubic meter of air

## Executive Summary

FHWA's reevaluation confirms that the adopted toll structure, with the committed mitigation, will have no significant impact on the human or natural environment.

### Background

In June 2023, the Federal Highway Administration (FHWA) found that New York's Central Business District (CBD) Tolling Program (CBDTP), known as Congestion Pricing, "will have no significant impact on the human or natural environment" following an extensive review of CBDTP's potential beneficial and adverse effects and committed mitigation, and documented in the CBDTP Final Environmental Assessment (EA). The review considered a variety of potential tolling structures with different combinations of low-to-high toll rates, crossing credits against the toll for vehicles travelling to the CBD through already-tolled bridges and tunnels, exemptions for certain types of vehicles, and other program features.<sup>1</sup>

Since then, the Triborough Bridge and Tunnel Authority (an affiliate of MTA and doing business as MTA Bridges and Tunnels) has adopted a toll structure, based on a recommendation of an independent advisory body, the Traffic Mobility Review Board, and conducted the required public comment period as part of New York's rate-making State Administrative Procedures Act process.

The purpose of this reevaluation is to make sure that the effects of MTA's adopted toll structure are consistent with the effects disclosed in the Final EA, and that the mitigation identified in FHWA's Finding of No Significant Impact (FONSI) remains valid. In every category, the effects are consistent with those predicated in the Final EA; importantly, some of the adverse effects no longer occur and many are on the lower end of those disclosed in the Final EA.



## The adopted toll structure is in line with the tolling scenarios studied in the Final EA

The parameters of the adopted toll structure fall within the range of tolling scenarios evaluated in the Final EA. In brief, the adopted toll structure includes the following elements:<sup>2</sup>

- Passenger vehicles and passenger-type vehicles with commercial license plates will be charged a \$15 peak-period (\$3.75 overnight period) E-ZPass toll for entering the CBD, no more than once per day.
- Trucks will be charged a \$24 or \$36 peak-period (\$6 or \$9 overnight period) E-ZPass toll for entering the CBD, depending on their size.
- School buses contracted, commuter vans, and buses providing scheduled commuter services open to the public will be exempted from the CBD toll, while other buses will be charged a \$24 or \$36 peak period (\$6 or \$9 overnight period) E-ZPass toll for entering the CBD, depending on their type.
- Motorcycles will be charged a \$7.50 peak-period (\$1.75 overnight period) E-ZPass toll for entering the CBD, no more than once per day.
- Peak-period toll rates will apply during the most congested times of the day—from 5 a.m. to 9 p.m. on weekdays, and from 9 a.m. to 9 p.m. on weekends. Toll rates will be 75 percent lower in the overnight period.
- A tunnel crossing credit against the peak-period CBD toll rate will be provided to vehicles with E-ZPass entering through the Queens-Midtown, Hugh L. Carey, Holland, and Lincoln Tunnels; no tunnel crossing credits will be in effect in the overnight period, when CBD toll rates are already 75 percent lower than in the peak period.

**Table 1**, below, compares the various elements of the adopted toll structure with the tolling scenarios studied in the Final EA.

Table 1. Tolling Scenarios Evaluated in the Final EA with the Adopted Toll Structure Added

PARAMETER	SCENARIO A	SCENARIO B	SCENARIO C	SCENARIO D	SCENARIO E	SCENARIO F	SCENARIO G	ADOPTED TOLL STRUCTURE	EXPLANATION OF HOW THE ADOPTED TOLL STRUCTURE FITS WITHIN THE FINAL EA TOLLING SCENARIOS
	Base Plan	Base Plan with Caps and Exemptions	Low Crossing Credits for Vehicles Using Tunnels to Access the CBD, with Some Caps and Exemptions	High Crossing Credits for Vehicles Using Tunnels to Access the CBD	High Crossing Credits for Vehicles Using Tunnels to Access the CBD, with Some Caps and Exemptions	High Crossing Credits for Vehicles Using Manhattan Bridges and Tunnels to Access the CBD, with Some Caps and Exemptions	Base Plan with Same Tolls for All Vehicle Classes		
Time Periods <sup>1</sup>									
Peak: Weekdays	6 AM – 8 PM	6 AM – 8 PM	6 AM – 8 PM	6 AM – 8 PM	6 AM – 8 PM	6 AM – 10 AM; 4 PM – 8 PM	6 AM – 8 PM	5 AM – 9 PM <sup>2</sup>	Overnight period is the same length as those modeled in the Final EA; exceeds commitment in the Final EA to include "further reduced overnight tolls ... from at least 12:00 a.m. to 4:00a.m." by charging overnight tolls between 9p.m. to 5 a.m.; reflects a reduced number of time periods for ease of customer understanding
Peak: Weekends	10 AM – 10 PM	10 AM – 10 PM	10 AM – 10 PM	10 AM – 10 PM	10 AM – 10 PM	10 AM – 10 PM	10 AM – 10 PM	9 AM – 9 PM	
Off Peak: Weekdays	8 PM – 10 PM	8 PM – 10 PM	8 PM – 10 PM	8 PM – 10 PM	8 PM – 10 PM	10 AM – 4 PM	8 PM – 10 PM	9 PM – 5 AM	
Overnight: Weekdays	10 PM – 6 AM	10 PM – 6 AM	10 PM – 6 AM	10 PM – 6 AM	10 PM – 6 AM	8 PM – 6 AM	10 PM – 6 AM		
Overnight: Weekends	10 PM – 10 AM	10 PM – 10 AM	10 PM – 10 AM	10 PM – 10 AM	10 PM – 10 AM	10 PM – 10 AM	10 PM – 10 AM	9 PM – 9 AM	
Potential Crossing Credits									
Credit Toward CBD Toll for Tolls Paid at Tunnel Entries	No	No	Yes - Low	Yes - High	Yes - High	Yes - High	No	Yes - Low	Same as Tolling Scenarios C, D, E, & F
Credit Toward CBD Toll for Tolls Paid at Bridges to Manhattan	No	No	No	No	No	Yes - High	No	No	
Potential Exemptions and Limits (Caps) on Number of Tolls per Day <sup>4,5,6</sup>									
Autos, motorcycles, and commercial vans	Once per day	Once per day	Once per day	Once per day	Once per day	Once per day	Once per day	Once per day	Same as all Final EA tolling scenarios
Taxis	No cap	Once per day	Exempt	No cap	Exempt	Once per day	No cap	\$1.25 per trip toll on trips to, within, or from the CBD	Final EA commits that "TBTA will ensure that New York City taxis and FHV's are not tolled more than once per day in the adopted CBD toll structure;" per-trip tolls for taxis and FHV's equivalent to commitment of a once-per-day charge (see note 4)
FHV's	No cap	Once per day	Three times per day	No cap	Three times per day	Once per day	No cap	\$2.50 per trip toll on trips to, within, or from the CBD	
Small and large trucks	No cap	Twice per day	No cap	No cap	No cap	Once per day	No cap	No cap	Same as Tolling Scenarios A, C, D, E, and G
Buses	No cap	Exempt	No cap	No cap	Transit buses – Exempt No cap on other buses	Exempt	No cap	Certain buses – Exempt (see note 5)	Same as Tolling Scenario E

PARAMETER	SCENARIO A	SCENARIO B	SCENARIO C	SCENARIO D	SCENARIO E	SCENARIO F	SCENARIO G	ADOPTED TOLL STRUCTURE	EXPLANATION OF HOW THE ADOPTED TOLL STRUCTURE FITS WITHIN THE FINAL EA TOLLING SCENARIOS
	Base Plan	Base Plan with Caps and Exemptions	Low Crossing Credits for Vehicles Using Tunnels to Access the CBD, with Some Caps and Exemptions	High Crossing Credits for Vehicles Using Tunnels to Access the CBD	High Crossing Credits for Vehicles Using Tunnels to Access the CBD, with Some Caps and Exemptions	High Crossing Credits for Vehicles Using Manhattan Bridges and Tunnels to Access the CBD, with Some Caps and Exemptions	Base Plan with Same Tolls for All Vehicle Classes		
Approximate Toll Rate Assumed for Autos, Commercial Vans, and Motorcycles <sup>3</sup>									
Peak	\$9	\$10	\$14	\$19	\$23	\$23	\$12	\$15	Within the range of \$9 - \$23
Off Peak	\$7	\$8	\$11	\$14	\$17	\$17	\$9	\$3.75	Lower than range in the Final EA; closest to Tolling Scenarios A and B at \$5; exceeds commitment in the Final EA to include "further reduced overnight tolls at or below 50 percent..." by reducing peak toll by 75 percent
Overnight	\$5	\$5	\$7	\$10	\$12	\$12	\$7	\$3.75	
Approximate Toll Rate Assumed for Trucks (Small Trucks/Large Trucks) <sup>3</sup>									
Peak	\$18 / \$28	\$20 / \$30	\$28 / \$42	\$38 / \$57	\$46 / \$69	\$65 / \$82	\$12 / \$12	\$24 / \$36	Within the range of \$12 - \$65 (small trucks) / \$12 - \$82 (large trucks)
Off Peak	\$14 / \$21	\$15 / \$23	\$21 / \$32	\$29 / \$43	\$35 / \$52	\$49 / \$62	\$9 / \$9		
Overnight	\$9 / \$14	\$10 / \$15	\$14 / \$21	\$19 / \$29	\$23 / \$35	\$33 / \$41	\$7 / \$7	\$6 / \$9	Toll rates lower than range of rates presented in the Final EA; exceeds commitment in the Final EA to include "further reduced overnight tolls at or below 50 percent..." by reducing peak toll by 75 percent

Notes:

- <sup>1</sup> Tolls would be higher during peak periods when traffic is greatest. All Final EA tolling scenarios and the adopted toll structure include a higher toll on designated “Gridlock Alert” days, although the modeling conducted for the Project does not reflect this higher toll since it considers typical days rather than days with unusually high traffic levels.
- <sup>2</sup> The adopted toll structure has a simplified two-time-period structure (i.e., peak and overnight) on weekdays, as opposed to the three-time-period (i.e., peak, off-peak, and overnight) weekday structures studied in the Final EA. As there is no longer an off-peak period on weekdays, the weekday peak and overnight periods are longer than those studied in the Final EA. The transportation modeling conducted for the adopted toll structure accounts for this change in the peak and off-peak periods and thus the model results reflect this change.
- <sup>3</sup> Toll rates are for vehicles using E-ZPass and are rounded. For all tolling scenarios, different rates would apply for vehicles not using E-ZPass.
- <sup>4</sup> The Final EA provides information on the types of vehicles licensed by the New York City Taxi and Limousine Commission (TLC) in Chapter 6, “Economic Conditions,” Section 6.3.2.6, on page 6-32. These include yellow cabs, for which TLC has issued medallions; green cabs, which are street-hail livery cabs that begin their trips outside the core service area of Manhattan; and FHV, which provide pre-arranged service. Vehicles licensed as app-based, or high-volume, FHV operate from bases that dispatch more than 10,000 trips a day. (<https://www.nyc.gov/site/tlc/businesses/high-volume-for-hire-services.page>). Currently there are two TLC-licensed high-volume FHV: Lyft and Uber. In this reevaluation document and the Final EA, the term “taxi” is used to refer to yellow cabs, green cabs, and FHV that are not high-volume FHV and the term “FHV” refers to app-based, high-volume FHV (i.e., Lyft and Uber).
- <sup>5</sup> The per-trip tolls for taxis and FHV in the adopted toll structure would be equivalent to the auto peak rate of \$15 (based on NYC Taxi and Limousine Commission analysis of trips made by TLC-licensed vehicles in May 2023: for taxis the average number of trips with passengers to/from/within the CBD is 12, and for FHV it is 6).
- <sup>6</sup> With the adopted toll structure, qualifying authorized emergency vehicles and qualifying vehicles transporting people with disabilities would be exempt from the toll. Specialized government vehicles would also be exempt. School buses contracted with the NYC Department of Education, commuter vans licensed with the NYC Taxi and Limousine Commission, and buses providing scheduled commuter services open to the public would also be exempt from the toll.



## The adopted toll structure deepens mitigation commitments made in the Final EA

The Final EA approved by FHWA in June 2023 addressed any potential adverse environmental effects from Congestion Pricing by committing to mitigation measures. It also concluded that Congestion Pricing would not have a disproportionately high and adverse effect on environmental justice communities or populations with the commitment to both place-based mitigation measures in potentially impacted environmental justice census tracts, and other mitigation measures designed to benefit the entire region, including low-income drivers. The value of those measures was \$207.5M over five years.

The adopted toll structure deepens the value of two of the mitigation measures described in the Final EA. It increased the low-income discount; it also both extended the overnight period beyond the commitment in the Final EA and deepened the overnight discount. With those additions, the total mitigation commitment made by the Project increased, from \$207.5M to \$330M.



### 1. Place-based mitigation

The reevaluation reaffirms the commitment to \$100M in funding for place-based mitigation to those environmental justice communities that (a) could see increased truck traffic proximity, and that (b) have at least one pollutant burden AND at least one chronic disease burden at or above the 90th percentile compared to the nation as a whole.

The reevaluation confirms that the adopted toll structure will affect the same 13 environmental justice communities as those identified in the Final EA: Crotona–Tremont, High Bridge–Morrisania, Hunts Point–Mott Haven, Northeast Bronx, Pelham–Throgs Neck, Downtown Brooklyn–Fort Greene, South Williamsburg, East Harlem, Randall’s Island, Newark, Orange, East Orange and Fort Lee. With the tolling structure now formally adopted, the amount of funding for each mitigation measure has been allocated to the affected EJ communities, in direct proportion with the population within the affected census tracts.

Place-based mitigation measures include:

- \$15M to replace diesel-powered Transport Refrigeration Units at Hunts Point Produce Market in the Bronx.
- \$20M to establish an asthma center and case management program in the Bronx.
- \$20M to implement electric truck charging infrastructure in New York City, which also has regional benefits: although the charging points can only be located in New York State because they are funded by NYSDOT, all trucks may use the charging points regardless of their points of origin or destination.

- \$10M to install air filtration units in schools near highways in any of the affected communities regionwide.
- \$10M to install roadside vegetation in any of the affected communities regionwide.
- \$25M to renovate parks and greenspace in any of the affected communities regionwide.

## 2. Low-income discount

The adopted toll structure increased the discount available to low-income drivers, regardless of their place of residence, from 25 percent to 50 percent. This mitigation commitment is for a total of \$82.0M over five years and will benefit all low-income drivers in the region and beyond.

## 3. Regional mitigation

The reevaluation reaffirms the mitigation measures made in the Final EA, that have benefits throughout the region. Those measures include:

- \$123M to deeply discount the overnight toll so as to reduce diversions and encourage off hours truck deliveries (an increase in both the time period in which the discount is available and the depth of the discount).
- \$20M to expand the NYC Clean Trucks Program; participation in the program is open to trucks with more than 70 percent of their vehicle miles traveled in the tri-state area (New York, New Jersey, and Connecticut).
- \$5M to expand the NYCDOT Off-Hours Delivery Program; The program is available to all trucks regardless of their points of origin or destination.

**The potential adverse effects of the adopted toll structure were analyzed and are consistent or lower than those identified in the Final EA. Likewise, the mitigation measures committed to in the Final EA were determined to be sufficient to mitigate such impacts. With the mitigation measures identified in the Final EA, the adopted toll structure will not have a significant impact on the human or natural environment, nor a disproportionately high and adverse effect on environmental justice communities or populations.**

The reevaluation considers 20 areas of analysis. In 16 of those areas, the reevaluation finds that the Program will benefit communities or create no adverse effects: the regional transportation system, parking, social conditions (in terms of population, neighborhood character, public policy), economic conditions, energy, parks and recreational resources, historic and cultural resources, visual resources; air quality; noise; natural resources; hazardous waste/contaminated materials; and construction effects.

In four areas of analysis, the reevaluation, like the Final EA, found some potential adverse effects: highways and intersections; transit; pedestrian and bicycles. It also considered the potential for disproportionately high and adverse effects on environmental justice communities and populations. The Program includes significant mitigation commitments by the MTA, NYCDOT, and NYSDOT. These include



committing \$330 million in measures to mitigate the impact that the toll might have on low-income residents and communities across the region, with a special focus on environmental justice communities. The Project Sponsors have also committed to monitoring effects of the Program as it is implemented so that adjustments can be made if warranted (known as adaptive management).

The following tables describe the effects of the adopted toll structure, and compare them to the effects of the seven tolling scenarios analyzed in the Final EA. More detail can be found in **Table 1.1** of the reevaluation.

Transportation: Regional Transportation Effects and Modeling

TOPIC	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIOS	ADOPTED TOLL STRUCTURE	MITIGATION NEEDED
Vehicle Volumes	% Increase or decrease in daily vehicles entering the Manhattan CBD relative to No Action Alternative	-15% to -20%	-17%	None
Auto Journeys to CBD	% Increase or decrease in worker auto journeys to Manhattan CBD relative to No Action Alternative	-5% to -11%	-6%	None
Truck Trips Through CBD	% Increase or decrease in daily truck trips through Manhattan CBD (without origin or destination in the CBD) relative to No Action Alternative	-21% to -81%	-55%	None
Transit Journeys	% Increase or decrease in daily Manhattan CBD-related transit journeys relative to No Action Alternative	+1.2% to +2.5%	+1.6%	None
Traffic Results / Manhattan CBD	% Increase or decrease in daily VMT relative to No Action Alternative	-9.2% to -7.1%	-8.9%	None
Traffic Results / NYC non-CBD	% Increase or decrease in daily VMT relative to No Action Alternative	-1.0% to -0.2%	-0.4%	None
Traffic Results / North of NYC	% Increase or decrease in daily VMT relative to No Action Alternative	-0.8% to -0.2%	-0.4%	None
Traffic Results / Long Island	% Increase or decrease in daily VMT relative to No Action Alternative	-0.2% to +0.1%	0.0%	None
Traffic Results / New Jersey	% Increase or decrease in daily VMT relative to No Action Alternative	0.0% to +0.2%	+0.1%	None
Traffic Results / Connecticut	% Increase or decrease in daily VMT relative to No Action Alternative	-0.2% to 0.0%	-0.3%	None

Transportation: Highways and Local Intersections

TOPIC	FINAL EA TOLLING SCENARIOS	ADOPTED TOLL STRUCTURE	ADDITIONAL MITIGATION NEEDED
Traffic – 10 Highway Segments / AM	0 out of 10 highway corridors in the analyzed tolling scenario (Tolling Scenario D)	1 out of 10 highway corridors (Westbound Long Island Expressway (I-495) near the Queens-Midtown Tunnel); for some drivers, these increases will be offset by travel time savings within the CBD.	No. Mitigation in Final EA is sufficient.
Traffic – 10 Highway Segments / midday	2 out of 10 highway corridors in the analyzed tolling scenario (Tolling Scenario D), as well as Tolling Scenarios E and F	1 out of 10 highway corridors (approaches to westbound George Washington Bridge on I-95); for some drivers, these increases will be offset by travel time savings within the CBD.	No. Mitigation in Final EA is sufficient.
Traffic – 10 Highway Segments / PM	1 out of 10 highway corridors in the analyzed tolling scenario (Tolling Scenario D), as well as Tolling Scenarios E and F	1 out of 10 highway corridors (Southbound and northbound FDR Drive between East 10th Street and Brooklyn Bridge); for some drivers, these increases will be offset by travel time savings within the CBD.	No. Mitigation in Final EA is sufficient.
Intersections - 4 locations	4 locations in the analyzed tolling scenario (Tolling Scenario D), as well as Tolling Scenarios E and F	1 location: East 125th Street at Second Avenue (PM)	No. Mitigation in Final EA is sufficient.

Transportation: Transit

TOPIC / TRANSIT RIDERSHIP	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIOS	ADOPTED TOLL STRUCTURE	MITIGATION NEEDED
NYCT subways	% Increase or decrease in total AM peak period boardings systemwide	+1.5% to +2.0%	+1.7%	None. No adverse effects.
PATH		+0.8% to +2.0%	+1.3%	None. No adverse effects.
LIRR		+0.6% to +2.0%	+1.0%	None. No adverse effects.
Metro-North		+0.6% to +1.9%	+1.4%	None. No adverse effects.
NJ TRANSIT commuter rail		+0.3% to +2.3%	+0.9%	None. No adverse effects.
MTA/NYCT buses		+1.2% to +1.6%	+1.3%	None. No adverse effects.
NJTRANSIT Bus		+0.5% to +1.1%	+0.9%	None. No adverse effects.
Other bus		0.0% to +0.9%	+0.2%	None. No adverse effects.
Ferries		+2.5% to +3.6%	+2.9%	None. No adverse effects.
Roosevelt Island Tram		+1.7% to +2.6%	+2.9%	None. No adverse effects.

TOPIC / BUS PASSENGER LOADS	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIOS	ADOPTED TOLL STRUCTURE	MITIGATION NEEDED
Manhattan local bus	% Increase or decrease at maximum passenger load point	+0.5% to +1.2%	+0.5%	None. No adverse effects.
Bronx express bus		-1.6% to +2.2%	+0.6%	None. No adverse effects.
Queens local & express bus via QBB		+2.0% to +2.8%	+2.2%	None. No adverse effects.
Queens express bus via QMT		+0.2% to +1.1%	+0.5%	None. No adverse effects.
Brooklyn local & express bus		+0.6% to +2.6%	+0.5%	None. No adverse effects.
Staten Island express bus via Brooklyn		+3.5% to +4.5%	+3.9%	None. No adverse effects.
Staten Island express bus via NJ		+1.0% to +2.8%	+1.3%	None. No adverse effects.
NJ / West of Hudson bus via Holland Tunnel		-1.4% to +1.4%	+1.9%	None. No adverse effects.
NJ / West of Hudson bus via Lincoln Tunnel		+0.4% to +1.5%	+0.8%	None. No adverse effects.

TOPIC / TRANSIT ELEMENTS	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIOS	ADOPTED TOLL STRUCTURE	ADDITIONAL MITIGATION NEEDED
Hoboken PATH station stair 01/02	Net passenger increases at stair in the peak hour	45 to 240	140	No adverse effect predicted. Mitigation in Final EA will still be implemented, as an enhancement.
42 St-Times Square–subway station (Manhattan) Stair ML6/ML8		40 to 71	43	No. Mitigation in Final EA is sufficient.
Flushing-Main St subway station (Queens)–Escalator E456		40 to 74	61	No. Mitigation in Final EA is sufficient.
Union Sq subway station (Manhattan)–Escalator E219		14 to 23	18	No. Mitigation in Final EA is sufficient.
Court Sq subway station (Queens)–Stair P2/P4		117 to 152	122	No. Mitigation in Final EA is sufficient.

#### Air Quality

TOPIC / POLLUTANT CONCENTRATIONS ACROSS 12 COUNTIES*	DATA SHOWN IN TABLE	FINAL EA	ADOPTED TOLL STRUCTURE	MITIGATION NEEDED
Volatile Organic Compounds (VOC)	% Increase or decrease in criteria pollutants	-0.2%	-0.4%	No
Nitrogen Oxides (NO <sub>x</sub> )		-0.4%	-0.5%	
Carbon Monoxide (CO)		-0.3%	-0.7%	
Particulate Matter (PM <sub>10</sub> )		-1.0%	-1.0%	
Particulate Matter (PM <sub>2.5</sub> )		-0.7%	-0.8%	
Carbon Dioxide Equivalents (CO <sub>2</sub> e)		-0.6%	-0.6%	

\* Bronx, Kings (Brooklyn), New York (Manhattan), Queens, Richmond (Staten Island), Nassau, Suffolk, Putnam, Rockland, and Westchester Counties, New York; Bergen and Hudson Counties, New Jersey.

TOPIC / EMISSIONS “HOT SPOT” ANALYSIS	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIOS	ADOPTED TOLL STRUCTURE	MITIGATION NEEDED
Cross Bronx Expressway at Macombs Road, Bronx, NY	Increase or decrease in Annual Average Daily Traffic (AADT)	+1,766 to +3,996 (+1% to +2%)	+3,917 (+2%)	No
	Increase or decrease in daily number of trucks	+50 to +704 (+0% to +3%)	+433 (+2%)	
	Potential adverse air quality effects from truck diversions	No	No, PM <sub>10</sub> & PM <sub>2.5</sub> do not exceed NAAQS	
I-95, West of the GWB, Bergen County, NJ	Increase or decrease in AADT	+5,003 to +12,506 (+2% to +5%)	+10,341 (+4%)	No
	Increase or decrease in daily number of trucks	-236 to +955 (-1% to +3%)	+499 (+1%)	
	Potential adverse air quality effects from truck diversions	No	No, PM <sub>10</sub> & PM <sub>2.5</sub> do not exceed NAAQS	
RFK Bridge, NY	Increase or decrease in AADT	+18,742 to +21,006 (+13% to +15%)	+20,273 (+14%)	No
	Increase or decrease in daily number of trucks	+432 to +4,116 (+3% to +27%)	+2,433 (+16%)	
	Potential adverse air quality effects from truck diversions	No	No, PM <sub>10</sub> & PM <sub>2.5</sub> do not exceed NAAQS	

In addition to the regional and highway “hot spot” analysis, the Final EA and reevaluation assessed the potential effects of emissions from vehicles at 102 intersections across Manhattan, Long Island City, Downtown Brooklyn, and Jersey City near the Holland Tunnel.

All 102 intersections passed screening for air quality effects in both the Final EA and the reevaluation.

#### Transportation: Parking

Both the Final EA and reevaluation found that CBDTP would have beneficial effects for parking in the CBD since auto trips to the CBD are anticipated to decrease.

Though parking demand at some transit facilities outside the CBD would increase with increased transit ridership, the Final EA and reevaluation found that these increases would be small enough not to generate adverse effects.

#### Social Conditions

- Access to Employment
  - The vast majority of commuters to the CBD currently use transit.
  - Those who drive despite the CBD toll would do so based on the need or convenience of driving and would benefit from the reduced congestion in the Manhattan CBD.

- There would be a negligible effect (less than 0.1 percent) on travel to employment within the Manhattan CBD and reverse-commuting from the CBD due to the wide range of transit options available and the small number of commuters who drive today.
- Vulnerable Populations
  - Both the Final EA and reevaluation found that CBDTP would benefit vulnerable social groups, including elderly populations, persons with disabilities, transit-dependent populations, and non-driver populations, by funding transit improvements and by improving bus travel times and reliability (bus passengers tend to be older than riders on other forms of transit, such as the subway).
  - People over the age of 65 with a qualifying disability are eligible for reduced fare on MTA subways and buses and may also receive MTA’s paratransit service, including taxis and for-hire vehicles (FHV’s) operating on behalf of MTA.
  - Elderly people with disabilities and low-income individuals who drive to the Manhattan CBD would be entitled to the same mitigation and enhancements proposed for low-income and disabled populations, in general.

#### Economic Conditions

- The Final EA and reevaluation found economic benefits from CBDTP through travel-time savings and travel-time reliability improvements, as well as reduced vehicle operating costs.
- As found in the Final EA, the adopted toll structure is not anticipated to result in meaningful change in cost for most consumer goods.
- Any cost increase associated with the new toll would be passed along to several business customers, minimizing costs to any individual business.
- No adverse effects were found for any particular industry or sector of the labor force in the Manhattan CBD, including the taxi/FHV industry.
- Transit access in the CBD is high and a high percentage of workers commute by transit; thus, the toll would affect only a small percentage of the overall workforce.
- The potential decrease in taxi/FHV VMT across the region and within the Manhattan CBD under the adopted toll structure is much smaller than the largest potential decreases predicted in the Final EA.

TOPIC / TAXI AND FHV INDUSTRY	DATA SHOWN IN TABLE	FINAL EA	ADOPTED TOLL STRUCTURE	MITIGATION NEEDED
Regionwide	% change in daily taxi/FHV VMT	-5.0% to -0.1%	-0.7%	No; (see “Environmental Justice” for mitigation related to effects on taxi and FHV drivers).
In the Manhattan CBD		-16.8% to +4.6%	-0.3%	

### Environmental Justice

- A very small minority of low-income commuters to the CBD drive; many more take transit.
- Low-income drivers to the Manhattan CBD would have increased costs in adopted toll structure, as they would under the scenarios studied in the Final EA; with the adopted toll structure, MTA, NYCDOT, and NYSDOT have committed to a low-income discount that is double what was committed to in the Final EA.
- Taxi and FHV drivers have potential decreases in VMT in the CBD under the adopted toll structure that are smaller than the largest decreases found in the Final EA; this is possible because the adopted toll structure includes per-trip fees that are equivalent to the once-per-day toll cap that the Final EA found would not have, based on detailed data, disproportionately high and adverse effects on taxi/FHV drivers.
- As expected, the census tracts with pre-existing air pollutant and chronic disease burdens that would benefit from reduced traffic, and those affected by increased traffic from vehicles diverting around the CBD, vary somewhat from the Final EA under the adopted toll structure, but the communities remain the same.
- A package of regional and place-based investments, described above, will mitigate these effects.

The adopted toll structure meets the purpose and need of reducing traffic congestion in the CBD, while generating revenue for future transportation improvements

SCREENING CRITERION	CBD TOLLING (ACTION) ALTERNATIVE FINAL EA SCENARIOS	ADOPTED TOLL STRUCTURE
<b>Purpose and Need:</b> Reduce traffic congestion in the Manhattan CBD in a manner that will generate revenue for future transportation improvements	MEETS	MEETS
<b>Objective 1:</b> Reduce daily vehicle-miles traveled (VMT) within the Manhattan CBD Criterion: Reduce by 5% (relative to No Action)	MEETS	MEETS
Daily VMT reduction (2023)	7.1% - 9.2%	8.9%
<b>Objective 2:</b> Reduce the number of vehicles entering the Manhattan CBD daily Criterion: Reduce by 10% (relative to No Action)	MEETS	MEETS
Daily vehicle reduction (2023)	15.4% - 19.9%	17.3%
<b>Objective 3:</b> Create a funding source for capital improvements and generate sufficient annual net revenues to fund \$15 billion for capital projects for MTA's Capital Program	MEETS <sup>1</sup>	MEETS
Net revenue to support MTA's Capital Program <sup>2</sup>	\$1.0 billion - \$1.5 billion	\$0.9 billion
<b>Objective 4:</b> Establish a tolling program consistent with the purposes underlying the New York State legislation entitled the "MTA Reform and Traffic Mobility Act"	MEETS	MEETS

Notes:

- 1 Although Final EA Tolling Scenario B would not meet Objective 3 with the toll rates identified and assessed in the Final EA, additional analysis was conducted to demonstrate that it would meet this objective with a higher toll rate; the resulting VMT reduction and revenue for that modified scenario would fall within the range of the other Final EA scenarios.
- 2 The net revenue needed to fund \$15 billion depends on a number of economic factors, including but not limited to interest rates and term. For the purposes of the Final EA, the modeling assumes the Project should provide at least \$1 billion annually in total net revenue, which would be invested or bonded to generate sufficient funds. The net revenue values provided in this table are rounded and based on Project modeling. Following completion of the Final EA, based on current interest rates and expected timing of projects, MTA's Chief Financial Officer has determined that annual net revenues in the range of \$0.9 billion should be sufficient to meet the Project's need to fund \$15 billion of capital projects for the MTA Capital Program.

## ENDNOTES

- 1 Federal Highway Administration. June, 2023. "Finding of No Significant Impact: Central Business District (CBD) Tolling Program." Available at <https://new.mta.info/document/114186>; for more information on the federal environmental review process that led to this Finding, including information on why a federal environmental review was necessary, refer to the "Finding of No Significant Impact (FONSI)" page on the MTA CBD Tolling Program web site at <https://new.mta.info/project/CBDTP/environmental-assessment>.
- 2 For more detail, see the "Congestion Relief Zone, Tolling Information" page at <https://congestionreliefzone.mta.info/tolling>.

# 1 Introduction

In June 2023, the Federal Highway Administration (FHWA) issued a Finding of No Significant Impact (FONSI) for the Central Business District (CBD) Tolling Program. The FONSI was based on the April 2023 Final Environmental Assessment (EA), with committed mitigation.

At that time, seven tolling scenarios were presented in the Final EA and FONSI representing a range of toll structures to evaluate their ability to meet the needs of the Project and the resultant environmental effects. The Metropolitan Transportation Authority (MTA) Reform and Traffic Mobility Act (the Act) requires that a Traffic Mobility Review Board (TMRB) be established to recommend a toll structure to the Triborough Bridge and Tunnel Authority (TBTA) Board, in order for the TBTA Board to thereafter propose and adopt a toll structure through a state ratemaking process pursuant to New York's State Administrative Procedure Act (SAPA). Accordingly, the seven tolling scenarios, were developed with different assumptions regarding toll rates, peak periods, and potential discounts, exemptions, and crossing credits, in order to explore and disclose the range of effects that could occur as a result of the CBD Tolling Program. Recognizing that the TMRB could recommend a toll structure that mirrored one of the tolling scenarios, or could recommend different parameters, and that the TBTA Board could choose to adopt a different toll structure, the FONSI contemplated a reevaluation, prepared pursuant to 23 CFR § 771, once the TBTA Board adopted the CBD Tolling Program toll structure.<sup>1</sup>

In November 2023, the TMRB issued a report detailing its tolling recommendations. In accordance with SAPA, the TBTA Board authorized the TMRB's tolling recommendations to be filed in the form of a proposed toll structure, and held a public comment period that included four public hearings. On March 27, 2024, the TBTA Board voted to adopt a final schedule of toll rates as well as associated exemptions, crossing credits, and discounts, referred to in this reevaluation as the "adopted toll structure." The adopted toll structure is the same as recommended by the TMRB with several clarifications incorporated.

The TBTA-adopted toll structure is being reevaluated to determine if the FONSI is still valid. This requires that TBTA demonstrate to FHWA that the effects of the adopted toll structure are consistent with the effects disclosed in the Final EA and that the mitigation is still valid.

The following sections provide the results of analyses conducted for the reevaluation. For ease of comparison, the sections follow the same order for the resource area analyses as the Final EA. Where appropriate, and to provide context, tables with analysis results from the Final EA are provided, side by side with the results of the adopted toll structure.

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<sup>1</sup> Federal Highway Administration, *Finding of No Significant Impact, Central Business District (CBD) Tolling Program*, <https://new.mta.info/document/114186>, p. 26.



**Table 1.1** provides a summary of the effects of the adopted toll structure in comparison to the effects presented in the Final EA. The table is a re-creation of the table that was provided in the Final EA as Table ES-5 and Table 16-1, now modified to include the adopted toll structure.

Table 1.1 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
4A – Transportation: Regional Transportation Effects and Modeling	Vehicle Volumes	▪ Decreases in daily vehicle trips to Manhattan CBD overall.	Crossing locations to Manhattan CBD	% Increase or decrease in daily vehicles entering the Manhattan CBD relative to No Action Alternative	-15%	-16%	-17%	-19%	-20%	-18%	-17%	No	No mitigation needed. Beneficial effects	-17%	No	No mitigation needed. Same as Final EA
	Auto Journeys to CBD	▪ Some diversions to different crossings to Manhattan CBD or around the Manhattan CBD altogether, depending on tolling scenario. As traffic, including truck trips, increase on some circumferential highways, simultaneously there is a reduction in traffic on other highway segments to the CBD.	Manhattan CBD	% Increase or decrease in worker auto journeys to Manhattan CBD relative to No Action Alternative	-5%	-5%	-7%	-9%	-11%	-10%	-6%	No	No mitigation needed. Beneficial effects	-6%	No	No mitigation needed. Same as Final EA
				Absolute increase or decrease in daily worker auto trips to Manhattan CBD relative to No Action Alternative	-12,571	-12,883	-17,408	-24,017	-27,471	-24,433	-14,578			-16,447		
	Truck Trips Through CBD		Manhattan CBD	Increase or decrease in daily truck trips through Manhattan CBD (without origin or destination in the CBD) relative to No Action Alternative	-4,645 (-55%)	-4,967 (-59%)	-5,253 (-63%)	-5,687 (-68%)	-6,604 (-79%)	-6,784 (-81%)	-1,734 (-21%)	No	No mitigation needed. Beneficial effects	-4,627 (-55%)	No	No mitigation needed. Same as Final EA
	Transit Journeys	▪ Diversions would increase or decrease traffic volumes at local intersections near the Manhattan CBD crossings.	Manhattan CBD	% Increase or decrease in daily Manhattan CBD-related transit journeys relative to No Action Alternative	+1.2%	+1.2%	+1.7%	+2.2%	+2.5%	+2.1%	+1.5%	No	No mitigation needed. No adverse effects	+1.6%	No	No mitigation needed. Same as Final EA
	Traffic Results	▪ Overall decrease in vehicle-miles traveled (VMT) in the Manhattan CBD and region overall in all tolling scenarios and some shift from vehicle to transit mode.	Manhattan CBD	% Increase or decrease in daily VMT relative to No Action Alternative	-7.8%	-7.6%	-8.0%	-8.7%	-9.2%	-7.1%	-8.4%	No	No mitigation needed. Beneficial effects in Manhattan CBD, New York City (non-CBD), north of New York City, and Connecticut; although there would be VMT increases in Long Island and New Jersey, the effects would not be adverse.	-8.9%	No	No mitigation needed. Same as Final EA
			NYC (non-CBD)		-0.3%	-0.2%	-0.7%	-0.9%	-1.0%	-0.7%	-0.3%			-0.4%		
			NY north of NYC		-0.2%	-0.2%	-0.4%	-0.6%	-0.8%	-0.5%	-0.3%			-0.4%		
			Long Island		+0.1%	0.0%	-0.1%	-0.2%	-0.2%	0.0%	0.0%			0.0%		
			New Jersey		+0.0%	+0.0%	+0.2%	+0.2%	+0.1%	+0.2%	+0.1%			+0.1%		
			Connecticut		-0.1%	-0.2%	-0.2%	-0.2%	-0.2%	0.0%	-0.2%			-0.3%		

Table 1.1 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
4B – Transportation: Highways and Local Intersections	Traffic – Highway Segments	<p>The introduction of the CBD Tolling Program may produce increased congestion on highway segments approaching on circumferential roadways used to avoid Manhattan CBD tolls, resulting in increased delays and queues in midday and PM peak hours on certain segments in some tolling scenarios:</p> <ul style="list-style-type: none"><li>Westbound Long Island Expressway (I-495) near the Queens-Midtown Tunnel (midday)</li><li>Approaches to westbound George Washington Bridge on I-95 (midday)</li><li>Southbound and northbound Franklin D. Roosevelt (FDR) Drive between East 10th Street and Brooklyn Bridge (PM)</li><li>Other locations will see an associated decrease in congestion particularly on routes approaching the Manhattan CBD</li></ul>	10 highway segments (AM)	Highway segments with increased delays and queues in peak hours that would result in adverse effects	0 out of 10 highway corridors in the analyzed tolling scenario (Tolling Scenario D)							Yes	<p><b>Mitigation needed.</b> The Project Sponsors will implement a monitoring plan prior to implementation with post-implementation data collected approximately three months after the start of tolling operations and including thresholds for effects; if the thresholds are reached or crossed, the Project Sponsors will implement Transportation Demand Management (TDM) measures, such as ramp metering, motorist information, signage at all identified highway locations with adverse effects upon implementation of the Project. New York State Department of Transportation (NYSDOT) owns and maintains the relevant segments of the Long Island Expressway and I-95. The relevant segment of the FDR Drive is owned by NYSDOT south of Montgomery Street and New York City Department of Transportation (NYCDOT) north of Montgomery Street. Implementation of TDM measures will be coordinated between the highway owners and the owners of any assets relevant to implementing the TDM.</p> <p>Post-implementation of TDM measures, the Project Sponsors will monitor effects and, if needed, TBTA will modify the toll rates, crossing credits, exemptions, and/or discounts to reduce adverse effects.</p>	AM - 1 out of 10 highway corridors (Westbound Long Island Expressway (I-495) near the Queens-Midtown Tunnel); for some drivers, these increases will be offset by travel time savings within the CBD.	Yes	<p><b>No additional mitigation needed.</b> The Project Sponsors will implement the mitigation commitments of the Final EA.</p>
	10 highway segments (midday)	2 out of 10 highway corridors in the analyzed tolling scenario (Tolling Scenario D), as well as Tolling Scenarios E and F							Midday - 1 out of 10 highway corridors (approaches to westbound George Washington Bridge on I-95); for some drivers, these increases will be offset by travel time savings within the CBD.							
10 highway segments (PM)	1 out of 10 highway corridors in the analyzed tolling scenario (Tolling Scenario D), as well as Tolling Scenarios E and F							PM - 1 out of 10 highway corridors (southbound and northbound FDR Drive between East 10th Street and Brooklyn Bridge); for some drivers, these increases will be offset by travel time savings within the CBD.								
	Intersections	<p>Shifts in traffic patterns, with increases in traffic at some locations and decreases at other locations, would change conditions at some local intersections within and near the Manhattan CBD. Of the 102 intersections analyzed, most intersections would see reductions in delay.</p> <p>Potential adverse effects on four local intersections in Manhattan:</p> <ul style="list-style-type: none"><li>Trinity Place and Edgar Street (midday)</li><li>East 36th Street and Second Avenue (midday)</li><li>East 37th Street and Third Avenue (midday)</li><li>East 125th Street and Second Avenue (AM, PM)</li></ul>	4 locations	Number of locations with potential adverse effects that will be addressed with signal timing adjustments	4 in the analyzed tolling scenario (Tolling Scenario D), as well as Tolling Scenarios E and F							Yes	<p><b>Mitigation needed.</b> NYCDOT will monitor those intersections where potential adverse effects were identified and implement appropriate signal timing adjustments to mitigate the effect, per NYCDOT’s normal practice.</p> <p><b>Enhancement</b> Refer to the overall enhancement on monitoring at the end of this table.</p>	Potential adverse effects at <b>1 location:</b> East 125th Street at Second Avenue (PM)	Yes	<p><b>No additional mitigation needed.</b> The mitigation commitment remains for East 125th Street at Second Avenue; for the other three locations identified in the Final EA, NYCDOT is maintaining the commitment to implement the measures identified in the Final EA as an enhancement.</p>

Table 1.1 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
4C – Transportation: Transit	Transit Systems	The Project would generate a dedicated revenue source for investment in the transit system. Transit ridership would increase by 1 to 2 percent systemwide for travel to and from the Manhattan CBD, because some people would shift to transit rather than driving. Increases in transit ridership would not result in adverse effects on line-haul capacity on any transit routes.	New York City Transit	% Increase or decrease in total AM peak period boardings systemwide	1.5%	1.6%	1.7%	1.9%	2.0%	1.9%	1.8%	No	No mitigation needed. No adverse effects	1.7%	No	No mitigation needed. No adverse effects
			Port Authority Trans-Hudson (PATH)		0.8%	0.7%	1.4%	1.6%	2.0%	1.8%	1.6%			1.3%		
			Long Island Rail Road (LIRR)		0.6%	0.9%	1.1%	1.5%	2.0%	1.3%	1.0%			1.0%		
			Metro-North Railroad		0.6%	0.8%	1.3%	1.7%	1.4%	1.9%	0.8%			1.4%		
			NJ TRANSIT commuter rail		0.3%	0.5%	1.0%	1.5%	2.3%	1.7%	1.0%			0.9%		
			MTA/New York City Transit (NYCT) buses		1.3%	1.3%	1.5%	1.5%	1.6%	1.6%	1.2%			1.3%		
			NJ TRANSIT bus		0.7%	0.5%	0.6%	0.7%	1.1%	1.0%	0.7%			0.9%		
			Other buses (suburban and private operators)		0.2%	0.0%	0.9%	0.7%	0.5%	0.5%	0.1%			0.2%		
			Ferries (Staten Island Ferry, NYC Ferry, NY Waterway, Seastreak)		2.5%	2.7%	3.1%	3.2%	3.1%	3.6%	2.7%			2.9%		
			Roosevelt Island Tram		1.8%	1.7%	2.0%	2.2%	2.6%	2.5%	1.7%			2.9%		
	Bus System Effects	Decreases in traffic volumes within the Manhattan CBD and near the 60th Street boundary of the Manhattan CBD would reduce the roadway congestion that adversely affects bus operations, facilitating more reliable, faster bus trips.	Manhattan local buses	% Increase or decrease at maximum passenger load point	0.5%	0.5%	0.7%	1.1%	1.2%	0.9%	0.7%	No	No mitigation needed. No adverse effects	0.5%	No	No mitigation needed. No adverse effects
			Bronx express buses		-1.6%	2.0%	2.2%	-0.5%	2.0%	1.5%	-2.5%			0.6%		
			Queens local and express buses (via Ed Koch Queensboro Bridge)		2.2%	2.0%	2.3%	2.3%	2.5%	2.8%	2.0%			2.2%		
			Queens express buses (via Queens-Midtown Tunnel)		0.3%	0.2%	0.4%	0.8%	1.1%	0.8%	0.6%			0.5%		
			Brooklyn local and express buses		0.8%	1.0%	0.6%	0.7%	0.7%	0.8%	2.6%			0.5%		
			Staten Island express routes (via Brooklyn)		4.0%	4.5%	4.4%	3.8%	3.9%	3.7%	3.5%			3.9%		
			Staten Island express routes (via NJ)		1.0%	1.9%	2.3%	2.8%	1.8%	1.8%	2.4%			1.3%		
			NJ/West of Hudson buses (via Holland Tunnel)		-1.4%	-0.9%	-0.3%	1.4%	-0.9%	-0.6%	-1.4%			1.9%*		
			NJ/West of Hudson buses (via Lincoln Tunnel)		0.4%	0.6%	0.4%	0.6%	1.5%	1.1%	0.6%			0.8%		

Table 1.1 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
4C – Transportation: Transit (Cont'd)	Transit Elements	<p>Increased ridership would affect passenger flows with the potential for adverse effects at certain vertical circulation elements (i.e., stairs and escalators) in five transit stations:</p> <ul style="list-style-type: none"><li>Hoboken Terminal, Hoboken, NJ PATH station</li><li>Times Sq-42 St/42 St-Port Authority Bus Terminal subway station in the Manhattan CBD (N, Q, R, W, and S; Nos. 1, 2, 3, and 7; and A, C, E lines)</li><li>Flushing-Main St subway station, Queens (No. 7 line)</li><li>14th Street-Union Square subway station in the Manhattan CBD (Nos. 4, 5, and 6; and L, N, Q, R, W lines)</li><li>Court Square subway station, Queens (No. 7 and E, G, M lines)</li></ul>	Hoboken Terminal–PATH station (NJ) Stair 01/02	Net passenger increases at stair in the peak hour vs. No Action Alternative	45	72	122	164	240	205	139	Yes	<b>Mitigation needed for Tolling Scenarios E and F.</b> TBTA will coordinate with NJ TRANSIT and the Port Authority of New York and New Jersey (PANYNJ) to monitor pedestrian volumes on Stair 01/02 one month prior to commencing tolling operations to establish a baseline, and two months after Project operations begin. If a comparison of Stair 01/02 passenger volumes before and after implementation shows an incremental change that is greater than or equal to 205, then TBTA will coordinate with NJ TRANSIT and PANYNJ to implement improved signage and wayfinding to divert some people from Stair 01/02, and supplemental personnel if needed.	140	No	<b>No mitigation needed.</b> TBTA is maintaining its commitment to implement the mitigation measures identified in the Final EA, including monitoring and improvements, if warranted, as an enhancement.
			42 St-Times Square–subway station (Manhattan) Stair ML6/ML8 connecting mezzanine to uptown 1/2/3 lines subway platform	Net passenger increases at stair in the peak hour vs. No Action Alternative	45	42	48	58	71	58	40	Yes	<b>Mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, TBTA will coordinate with MTA NYCT to remove the center handrail and standardize the riser, so that the stair meets code without the hand rail. The threshold will be set to allow for sufficient time to implement the mitigation so that the adverse effect does not occur.	43	Yes	<b>No additional mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement the mitigation commitments of the Final EA, including monitoring and improvements, if warranted.
			Flushing-Main St subway station (Queens)–Escalator E456 connecting street to mezzanine level	Net passenger increases at stair in the peak hour vs. No Action Alternative	65	51	60	65	56	74	40	Yes	<b>Mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, MTA NYCT will increase the speed from 100 feet per minute (fpm) to 120 fpm.	61	Yes	<b>No additional mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement the mitigation commitments of the Final EA, including monitoring and improvements, if warranted.
			Union Sq subway station (Manhattan)–Escalator E219 connecting the L subway line platform to the Nos. 4/5/6 line mezzanine	Net passenger increases at stair in the peak hour vs. No Action Alternative	14	19	20	23	23	22	14	Yes	<b>Mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, MTA NYCT will increase the escalator speed from 100 fpm to 120 fpm.	18	Yes	<b>No additional mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement the mitigation commitments of the Final EA, including monitoring and improvements, if warranted.
			Court Sq subway station (Queens)–Stair P2/P4 to Manhattan-bound No. 7 line	Net passenger increases at stair in the peak hour vs. No Action Alternative	127	117	133	135	130	152	126	Yes	<b>Mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, TBTA will coordinate with MTA NYCT to construct a new stair from the northern end of the No. 7 platform to the street. The threshold will be set to allow for sufficient time to implement the mitigation so that the adverse effect does not occur.	122	Yes	<b>No additional mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement the mitigation commitments of the Final EA, including monitoring and improvements, if warranted.,



Table 1.1 - Modified Final EA Table ES-5, Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
4D – Transportation: Parking	Parking Conditions	All tolling scenarios would result in a reduction in parking demand within the Manhattan CBD of a similar magnitude to the reduction in auto trips into the Manhattan CBD. With a shift from driving to transit, there would be increased parking demand at subway and commuter rail stations and park-and-ride facilities outside the Manhattan CBD.	Manhattan CBD	Narrative	Reduction in parking demand due to reduction in auto trips to CBD Model results do not indicate an increase in demand for parking in the area immediately surrounding the CBD							No	No mitigation needed. Beneficial effects	Same as Final EA	No	No mitigation needed. Beneficial effects
			Transit Facilities	Narrative	Small changes in parking demand at transit facilities, corresponding to increased commuter rail and subway ridership							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
4E – Transportation: Pedestrians and Bicycles	Pedestrian Circulation	Increased pedestrian activity on sidewalks outside transit hubs because of increased transit use. At all but one location in the Manhattan CBD (Herald Square/Penn Station), the increase in transit riders would not generate enough new pedestrians to adversely affect pedestrian circulation in the station area. Outside the Manhattan CBD, transit usage at individual stations would not increase enough to adversely affect pedestrian conditions on nearby sidewalks, crosswalks, or corners.	Herald Square/Penn Station NY	Sidewalks, corners, and crosswalks with pedestrian volumes above threshold in AM / PM peak periods	Adverse effects on pedestrian circulation at one sidewalk segment and two crosswalks							Yes	Mitigation needed. The Project Sponsors will implement a monitoring plan at this location. The plan will include a baseline, specific timing, and a threshold for additional action. If that threshold is reached, NYCDOT will increase pedestrian space on sidewalks and crosswalks via physical widening and/or removing or relocating obstructions.	Pedestrian volumes at key transit stations/hubs would be similar to those predicted in Final EA. Adverse effects are no longer predicted at Herald Square.	No	Mitigation is no longer needed. The Project Sponsors will implement the mitigation commitment described in the Final EA, including monitoring and improvements, if warranted, as an enhancement
	Bicycles	Small increases in bicycle trips near transit hubs and as a travel mode	Manhattan CBD	Narrative	Small increases in bicycle trips near transit hubs with highest increases in pedestrian trip share							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
			Outside Manhattan CBD	Narrative	Some shifts from automobile to bicycles							No	No mitigation needed. No adverse effects		No	No mitigation needed. No adverse effects
	Safety	No adverse effects	Overall	Narrative	No substantial increases in pedestrian volumes or increased safety concerns, including at existing identified high-crash locations. Overall, with fewer vehicular trips entering and exiting the Manhattan CBD, the CBD Tolling Alternative could result in reduced traffic volumes at these locations. This would help to reduce vehicle-vehicle and vehicle-pedestrian conflicts, leading to an overall benefit to safety.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects

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5A – Social Conditions: Population	Benefits	Benefits in and near the Manhattan CBD	28-county study area	Narrative	Benefits in and near the Manhattan CBD related to travel-time savings, improved travel-time reliability, reduced vehicle operating costs, improved safety, reduced air pollutant emissions, and predictable funding source for transit improvements. This would positively affect community connections and access to employment, education, healthcare, and recreation for residents.							No	No mitigation needed. Beneficial effects	Same as Final EA	No	No mitigation needed. Beneficial effects
	Community Cohesion	Changes to travel patterns, including increased use of transit, resulting from new toll	28-county study area	Narrative	Changes to travel patterns, including increased use of transit, as a result of the Project would not adversely affect community cohesion or make it more difficult for people to connect with others in their community, given the extensive transit network connecting to the Manhattan CBD and the small change in trips predicted.							No	No mitigation needed. No adverse effects (see “Environmental Justice” for mitigation related to increased costs for low-income drivers).	Same as Final EA	No	No mitigation needed. Beneficial effects
	Indirect Displacement	No notable changes in socioeconomic conditions or cost of living so as to induce potential involuntary displacement of residents	Manhattan CBD	Narrative	The Project would not result in the potential for indirect (involuntary) residential displacement. It would not result in substantial changes to market conditions so as to lead to changes in housing prices, given that real estate values in the Manhattan CBD are already high and the many factors that affect each household’s decisions about where to live. In addition, low-income residents of the CBD would not experience a notable increase in the cost of living as a result of the Project because of the lack of change in housing costs, the many housing units protected through New York’s rent-control, rent-stabilization, and other similar programs, the tax credit available to CBD residents with incomes of up to \$60,000, and the conclusion that the cost of goods would not increase as a result of the Project (see “Economic Conditions”).							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
	Community Facilities and Services	Increased cost for community facilities and service providers in the Manhattan CBD, their employees who drive, and clientele who drive from outside the CBD	Manhattan CBD	Narrative	The Project would increase costs for community service providers that operate vehicles into and out of the Manhattan CBD and for people who travel by vehicle to community facilities and services in the Manhattan CBD, as well as residents of the CBD and employees of community facilities who use vehicles to travel to community facilities outside the CBD. Given the wide range of travel options other than driving, the cost for users to drive to community facilities and services would not constitute an adverse effect on community facilities and services.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
	Effects on Vulnerable Social Groups	Benefits to vulnerable social groups from new funding for MTA Capital Program	28-county study area	Narrative	The Project would benefit certain vulnerable social groups, including elderly populations, persons with disabilities, transit-dependent populations, and non-driver populations by creating a funding source for the MTA 2020–2024 Capital Program (and subsequent capital programs and by reducing congestion in the Manhattan CBD). Elderly individuals would benefit from the travel-time and reliability improvements to bus service with the CBD Tolling Alternative, as bus passengers tend to be older than riders on other forms of transit, such as the subway and, as described above, bus passengers in the Manhattan CBD would benefit from travel-time savings due to the decrease in congestion. People over the age of 65 with a qualifying disability receive a reduced fare on MTA subways and buses, and elderly individuals with a qualifying disability can also receive MTA’s paratransit service, including taxis and for-hire vehicles (FHV’s) operating on behalf of MTA to transport paratransit users. Elderly people with disabilities and low-income individuals who drive to the Manhattan CBD would be entitled to the same mitigation and enhancements proposed for low-income and disabled populations, in general. Other elderly individuals who drive to the Manhattan CBD would pay the toll.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
	Access to Employment	Increased cost for small number of people who drive to work	28-county study area	Narrative	Decrease in work trips by driving modes to and within the Manhattan CBD, with an offsetting increase in transit ridership. Those who drive despite the CBD toll would do so based on the need or convenience of driving and would benefit from the reduced congestion in the Manhattan CBD. Negligible effect (less than 0.1%) on travel to employment within the Manhattan CBD and reverse-commuting from the CBD due to the wide range of transit options available and the small number of commuters who drive today.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects

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5B – Social Conditions: Neighborhood Character	Neighborhood character	No notable change in neighborhood character	Manhattan CBD	Narrative	The changes in traffic patterns on local streets would not change the defining elements of the neighborhood character of the Manhattan CBD.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
			Area near 60th Street Manhattan CBD boundary	Narrative	Changes in parking demand near the 60th Street CBD boundary (including increases just north of 60th Street and decreases just to the south) would not create a climate of disinvestment that could lead to adverse effects on neighborhood character nor alter the defining elements of the neighborhood character of this area.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
5C – Social Conditions: Public Policy	Public policy	No effect	28-county study area	Narrative	The Project would be consistent with regional transportation plans and other public policies in place for the regional study area and the Manhattan CBD.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects



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6 – Economic Conditions	Benefits	Regional economic benefits	28-county study area	Narrative	Economic benefit through congestion relief in terms of travel-time savings and travel-time reliability improvements, which would increase productivity and utility, as well as safety improvements and reduced vehicle operating costs associated with reductions in congestion.							No	No mitigation needed. Beneficial effects	Same as Final EA	No	No mitigation needed. Beneficial effects
	Economic Effects of Toll Costs	Cost of new toll for workers and businesses in the CBD that rely on vehicles	Manhattan CBD	Narrative	No adverse effects to any particular industry or occupational category in the Manhattan CBD. Given the high level of transit access in the CBD and high percentage of transit share, the toll would affect only a small percentage of the overall workforce. This would not adversely affect operations of businesses in the Manhattan CBD or the viability of any business types, including the taxi/FHV industry.							No	No mitigation needed. No adverse effects <b>Enhancements</b> The Project Sponsors commit to establishing a Small Business Working Group (SBWG) that will meet 6 months prior and 6 months after Project implementation, and annually thereafter, to solicit ongoing input on whether and how businesses are being affected.  As part of mitigation for other topics, TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final CBD toll structure; this will also benefit some workers and businesses.	Same as Final EA	No	No mitigation needed. No adverse effects  The Project Sponsors will implement the Enhancements described in the Final EA.
	Price of Goods	Cost of new toll would not result in changes in the cost of most consumer goods	Manhattan CBD	Narrative	Not anticipated to result in meaningful change in cost for most consumer goods. Any cost increase associated with the new toll in the CBD Tolling Alternative that would be passed along to receiving businesses would be distributed among several customers per toll charge (since trucks make multiple deliveries) especially for businesses, including small businesses and micro-businesses, receiving smaller deliveries. This would minimize the cost to any individual business. Some commodity sectors (construction materials, electronics, beverages) are more prone to increases due to less competition within delivery market.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
	Taxi and FHV Industry*	Depending on the tolling scenario, the toll could reduce taxi and FHV revenues due to a reduction in taxi/FHV VMT with passengers within the CBD. While this could adversely affect individual drivers (see “Environmental Justice”), the industry would remain viable overall.	28-county study area	Net change in daily taxi/FHV VMT regionwide	-126,993 (-2.9%)	-14,028 (-0.3%)	-73,413 (-1.7%)	-217,477 (-5.0%)	-116,065 (-2.7%)	-4,888 (-1.0%)	-137,815 (-3.2%)	No	No mitigation needed. No adverse effects (see “Environmental Justice” for mitigation related to effects on taxi and FHV drivers).	-30,963 (-0.7%)	No	No mitigation needed. No adverse effects
				Net change in daily taxi/FHV VMT in the CBD	-21,498 (-6.6%)	+15,020 (+4.6%)	-11,371 (-3.5%)	-54,476 (-16.8%)	-25,621 (-7.9%)	+4,962 (+1.5%)	-27,757 (-8.6%)			-904 (-0.3%)		
	Local Economic Effects	Changes in parking demand near the 60th Street CBD boundary	Area near 60th Street Manhattan CBD boundary	Narrative	Changes in parking demand near the 60th Street Manhattan CBD boundary (including increases just north of 60th Street and decreases just to the south) could jeopardize the viability of one or more parking facilities in the area south of 60th Street but would not create a climate of disinvestment that could lead to adverse effects on neighborhood character.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects

Note:

- \* The Final EA provides information on the types of vehicles licensed by the New York City Taxi and Limousine Commission (TLC) in Chapter 6, “Economic Conditions,” Section 6.3.2.6, on page 6-32. These include yellow cabs, for which TLC has issued medallions; green cabs, which are street-hail livery cabs that begin their trips outside the core service area of Manhattan; and FHV’s, which provide pre-arranged service. Vehicles licensed as app-based, or high-volume, FHV’s operate from bases that dispatch more than 10,000 trips a day. (<https://www.nyc.gov/site/tlc/businesses/high-volume-for-hire-services.page>). Currently there are two TLC-licensed high-volume FHV’s: Lyft and Uber. In this reevaluation document and the Final EA, the term “taxi” is used to refer to yellow cabs, green cabs, and FHV’s that are not high-volume FHV’s and the term “FHV” refers to app-based, high-volume FHV’s (i.e., Lyft and Uber).

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7 – Parks and Recreational Resources		New tolling infrastructure, tolling system equipment, and signage in the southern portion of Central Park	Manhattan CBD	Narrative	The Project would replace four existing streetlight poles at three detection locations in Central Park near 59th Street and on two adjacent sidewalks outside the park’s wall. These poles would be in the same locations as existing poles and would not reduce the amount of park space or affect the features and activities of the park. The Project would also place tolling infrastructure beneath the structure of the High Line, outside the park area atop the High Line structure. Following consideration of public input received during the public comment period, FHWA concluded that the CBD Tolling Alternative would have a <i>de minimis</i> impact on Central Park and the High Line.							No	No mitigation needed. Refer to <b>Chapter 7, “Parks and Recreational Resources,”</b> for a listing of measures to avoid adverse effects to parks.	Same as Final EA. No change proposed to new tolling infrastructure, tolling system equipment, or signage.	No	No mitigation needed. The Project Sponsors will implement measures described in the Final EA.
8 – Historic and Cultural Resources		New tolling infrastructure and tolling system equipment on or near historic properties	45 historic properties within the Project’s Area of Potential Effects (APE)	Narrative	Based on a review of the Project in accordance with Section 106 of the National Historic Preservation Act, FHWA has determined that the Project would have No Adverse Effect on historic properties and the State Historic Preservation Office has concurred.							No	No mitigation needed. Refer to <b>Chapter 8, “Historic and Cultural Resources,”</b> for a listing of measures to avoid adverse effects to historic properties.	Same as Final EA. No change proposed to new tolling infrastructure, tolling system equipment, or signage.	No	No mitigation needed. The Project Sponsors will implement the measures described in the Final EA.
9 – Visual Resources		Changes in visual environment resulting from new tolling infrastructure and tolling system equipment	Area of visual effect	Narrative	Infrastructure and equipment would be similar in form to streetlight poles, sign poles, or similar structures already in use throughout New York City. Cameras included in the array of tolling system equipment would use infrared illumination at night to allow images of license plates to be collected without any need for visible light. The Project would have a neutral effect on viewer groups and no adverse effect on visual resources							No	No mitigation needed. No adverse effects	Same as Final EA. No change proposed to new tolling infrastructure, tolling system equipment, or signage.	No	No mitigation needed. No adverse effects.

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EA Chapter	Topic	Summary of Effects	Location	Data Shown in Table	Final EA Tolling Scenario							Potential Adverse Effect	Mitigation and Enhancements	Adopted Toll Structure	Potential Adverse Effect	Mitigation and Enhancements
					A	B	C	D	E	F	G					
10 – Air Quality	Increases or decreases in emissions related to truck traffic diversions	Cross Bronx Expressway at Macombs Road, Bronx, NY	Increase or decrease in Annual Average Daily Traffic (AADT)	3,901	3,996	2,056	1,766	3,757	2,188	3,255	No	<b>No mitigation needed.</b> No adverse effects <b>Enhancements</b> 1. Refer to the overall enhancement on monitoring at the end of this table.  2. TBTA will work with the NYC Department of Health and Mental Hygiene (DOHMH) to expand the existing network of sensors to monitor priority locations and supplement a smaller number of real-time PM <sub>2.5</sub> monitors to provide insight into time-of-day patterns to determine whether the changes in air pollution can be attributed to changes in traffic occurring after implementation of the Project. The Project Sponsors will select the additional monitoring locations in consideration of air quality analysis in the EA and input from environmental justice stakeholders. NYS Department of Environmental Conservation (NYSDEC) and other agencies conducting monitoring will also be consulted prior to finalizing the monitoring approach. The Project Sponsors will monitor air quality prior to implementation (setting a baseline), and two years following implementation. Following the initial two-year post-implementation analysis period, and separate from ongoing air quality monitoring and reporting, the Project Sponsors will assess the magnitude and variability of changes in air quality to determine whether more monitoring sites are necessary. Data collected throughout the monitoring program will be made available publicly as data becomes available and analysis is completed. Data from the real-time monitors will be available online continuously from the start of pre-implementation monitoring.	3,917	No	<b>No mitigation needed.</b> The Project Sponsors are maintaining their commitment to implement the enhancement measures identified in the Final EA and FONSI.	
			Percent change in AADT compared to No Action Alternative	2%	2%	1%	1%	2%	1%	2%			2%			
			Increase or decrease in daily number of trucks	509	704	170	510	378	536	50			433			
			Percent change in daily number of trucks compared to No Action Alternative	2%	3%	1%	2%	1%	2%	0%			2%			
			Potential adverse air quality effects from truck diversions	No	No	No	No	No	No	No			No			
		I-95, Bergen County, NJ	Increase or decrease in AADT	9,843	11,459	7,980	5,003	7,078	5,842	12,506	No	 3. MTA is currently transitioning its fleet to zero-emission buses, which will reduce air pollutants and improve air quality near bus depots and along bus routes. MTA is committed to prioritizing traditionally underserved communities and those impacted by poor air quality and climate change and has developed an approach that actively incorporates these priorities in the deployment phasing process of the transition.  Based on feedback received during the outreach conducted for the Project and concerns raised by members of environmental justice communities, TBTA coordinated with MTA NYCT, which is committed to prioritizing the Kingsbridge Depot and Gun Hill Depot, both located in and serving primarily environmental justice communities in Upper Manhattan and the Bronx, when electric buses are received in MTA's next major procurement of battery electric buses, which began in late 2022. This independent effort by MTA NYCT is anticipated to provide air quality benefits to the environmental justice communities in the Bronx.	10,341	No		
			Percent change in AADT compared to No Action Alternative	4%	5%	3%	2%	3%	2%	5%			4%			
			Increase or decrease in daily number of trucks	801	955	729	631	696	637	-236			499			
			Percent change in daily number of trucks compared to No Action Alternative	2%	3%	2%	2%	2%	2%	-1%			1%			
			Potential adverse air quality effects from truck diversions	No	No	No	No	No	No	No			No			

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10 – Air Quality (Cont'd)		Increases or decreases in emissions related to truck traffic diversions (Cont'd)	RFK Bridge, NY	Increase or decrease in AADT	18,742	19,440	19,860	19,932	20,465	20,391	21,006	No	See above	20,273	No	No mitigation needed. The Project Sponsors are maintaining their commitment to implement the enhancement measures identified in the Final EA and FONSI.
				Percent change in AADT compared to No Action Alternative	13%	14%	14%	14%	15%	15%	15%			14%		
				Increase or decrease in daily number of trucks	2,257	2,423	2,820	3,479	4,116	3,045	432			2,433		
				Percent change in daily number of trucks compared to No Action Alternative	15%	16%	18%	22%	27%	20%	3%			16%		
				Potential adverse air quality effects from truck diversions	No	No	No	No	No	No	No			No		

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11 – Energy		Reductions in regional energy consumption	12-county study area	Narrative	Reductions in regional VMT would reduce energy consumption							No	No mitigation needed. Beneficial effects	Same as Final EA	No	No mitigation needed. Beneficial effects
12 – Noise		Imperceptible increases or decreases in noise levels resulting from changes in traffic volumes	Bridge and tunnel crossings	Narrative	The maximum noise level increases (2.9 A-weighted decibels, or dB(A)), which were predicted adjacent to the Queens-Midtown Tunnel in Tolling Scenario D, would not be perceptible.							No	No mitigation needed. No adverse effects	The maximum predicted noise level increase (0.5 dB(A)), at Robert F. Kennedy (RFK) Bridge in Manhattan, would not be perceptible.	No	No mitigation needed. No adverse effects. The Project Sponsors are maintaining their commitment to implement the enhancement measures identified in the Final EA and FONSI.
			Local streets	Narrative	Tolling Scenario C was used to assess noise level changes in Downtown Brooklyn, Tolling Scenario D was used at all other locations assessed. The maximum predicted noise level increases (2.5 dB(A)), which were at Trinity Place and Edgar Street, would not be perceptible. There was no predicted increase in noise levels in the Downtown Brooklyn locations.							No	Enhancement Refer to the overall enhancement on monitoring at the end of this table.	The maximum predicted noise level increases (2.8 dB(A)), at W. 179th St / Broadway, would not be perceptible.	No	

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13 – Natural Resources		Construction activities to install tolling infrastructure near natural resources	Sites of tolling infrastructure and tolling system equipment	Narrative	No effects on surface waters, wetlands, or floodplains. Potential effects on stormwater and ecological resources will be managed through construction commitments. The Project is consistent with coastal zone policies.							No	Refer to <b>Chapter 13, “Natural Resources,”</b> for a listing of construction commitments to avoid, minimize, or mitigate potential negative effects.	Same as Final EA. No change proposed to new tolling infrastructure, tolling system equipment, or signage.	No	The Project Sponsors will implement the construction commitments described in the Final EA.
14 – Hazardous Waste		Potential for disturbance of existing contaminated or hazardous materials during construction	Sites of tolling infrastructure and tolling system equipment	Narrative	Soil disturbance during construction and the potential alteration, removal, or disturbance of existing roadway infrastructure and utilities that could contain asbestos-containing materials, lead-based paint, or other hazardous substances. Potential effects will be managed through construction commitments.							No	Refer to <b>Chapter 14, “Asbestos-Containing Materials, Lead-Based Paint, Hazardous Wastes, and Contaminated Materials,”</b> for a listing of construction commitments to avoid, minimize, or mitigate potential negative effects.	Same as Final EA. No change proposed to new tolling infrastructure, tolling system equipment, or signage.	No	The Project Sponsors will implement the construction commitments described in the Final EA.
15 – Construction Effects		Potential disruption related to construction for installation of tolling infrastructure	Sites of tolling infrastructure and tolling system equipment	Narrative	Temporary disruptions to traffic and pedestrian patterns, and noise from construction activities, with a duration of less than one year overall, and approximately two weeks at any given location. These effects will be managed through construction commitments.							No	Refer to <b>Chapter 15, “Construction Effects,”</b> for a listing of construction commitments to avoid, minimize, or mitigate potential negative effects.	Same as Final EA. No change proposed to construction for new tolling infrastructure, tolling system equipment, or signage.	No	The Project Sponsors will implement the construction commitments described in the Final EA.



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EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
17 – Environmental Justice	Low-income drivers	The EA as published in August 2022 found the increased cost to drivers with the new CBD toll would disproportionately affect low-income drivers to the Manhattan CBD who do not have a reasonable alternative for reaching the Manhattan CBD. With further analysis of the population affected and the addition of new mitigation, the Final EA concludes there would not be a disproportionately high and adverse effect on low-income drivers.	28-county study area	Narrative	The increased cost to drivers would occur under all tolling scenarios.							Yes	<p><b>Mitigation needed.</b> The Project will include a tax credit for CBD tolls paid by residents of the Manhattan CBD whose New York adjusted gross income for the taxable year is less than \$60,000. TBTA will coordinate with the New York State Department of Taxation and Finance (NYS DTF) to ensure availability of documentation needed for drivers eligible for the NYS tax credit.</p> <p>TBTA will post information related to the tax credit on the Project website, with a link to the appropriate location on the NYS DTF website to guide eligible drivers to information on claiming the credit.</p> <p>TBTA will eliminate the \$10 refundable deposit currently required for E-ZPass customers who do not have a credit card linked to their account, and which is sometimes a barrier to access.</p> <p>TBTA will provide enhanced promotion of existing E-ZPass payment and plan options, including the ability for drivers to pay per trip (rather than a pre-loaded balance), refill their accounts with cash at participating retail locations, and discount plans already in place, about which they may not be aware.</p> <p>TBTA will coordinate with MTA to provide outreach and education on eligibility for existing discounted transit fare products and programs, including those for individuals 65 years of age and older, those with disabilities, and those with low incomes, about which many may not be aware.</p> <p>The Project Sponsors commit to establishing an Environmental Justice Community Group that will meet on a quarterly basis, with the first meeting taking place prior to Project implementation, to share updated data and analysis and hear about potential concerns. As it relates to environmental justice, the Project Sponsors will continue providing meaningful opportunities for participation and engagement by sharing updated data and analysis, listening to concerns, and seeking feedback on the toll setting process.</p> <p>TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final CBD toll structure; this will benefit low-income drivers who travel during that time.</p> <p>For five years, TBTA commits to a Low-Income Discount Plan for low-income frequent drivers who will benefit from a 25 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month (not including the overnight period, which will already be deeply discounted).</p> <p><b>Enhancement</b></p> <p>TBTA will coordinate with MTA NYCT to improve bus service in areas identified in the EA as the Brooklyn and Manhattan Bus Network Redesigns move forward.</p>	Incorporating the identified mitigation, no disproportionately high and adverse effect would occur on low-income drivers.	Yes	<p>No change in identified mitigation needed. The adopted toll structure incorporates and expands the mitigation commitments of the Final EA and FONSI.</p> <p>The adopted toll structure includes an overnight toll for trucks and other vehicles at 25 percent of the peak toll from 9 p.m. to 5 a.m. on weekdays and 9 p.m. to 9 a.m. on weekends.</p> <p>The adopted toll structure commits, for five years to a Low-Income Discount Plan for low-income frequent drivers who will benefit from a 50 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month (not including the overnight period, which will already be deeply discounted).</p>



Table 1.1. Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
17 – Environmental Justice	Taxi and FHV drivers*	The EA as published in August 2022 found a potential disproportionately high and adverse effect would occur to taxi and FHV drivers in New York City, who largely identify as minority populations, in tolling scenarios that toll their vehicles more than once a day. This would occur in unmodified Tolling Scenarios A, D, and G; for FHV drivers, it would also occur in Tolling Scenarios C and E. The adverse effect would be related to the cost of the new CBD toll and the reduction of VMT for taxis and FHV, which would result in a decrease in revenues that could lead to losses in employment. With the addition of new mitigation, the Final EA concludes there would not be a disproportionately high and adverse effect on taxi and FHV drivers.	New York City	Narrative	Potential adverse effect would occur in Tolling Scenarios A, D, and G, which would not have caps or exemptions for taxis and FHV drivers.							Yes	Mitigation needed. TBTA will ensure that a toll structure with tolls of no more than once per day for taxis or FHV is included in the final CBD toll structure.	No disproportionately high and adverse effect would occur on New York City taxi and FHV drivers with the adopted toll structure, which includes a per-trip toll on trips to, within, or from the CBD of \$1.25 for taxis and \$2.50 for FHV. These per-trip tolls are equivalent to the once per day toll for passenger vehicles included as part of the adopted toll structure.	No	Based on the average number of trips taxis and FHV make each day, the toll amount for taxis and FHV is equivalent to the once-daily toll rate for automobiles. In addition, the adopted toll structure requires the cost of the toll to be paid by the passenger rather than the taxi or FHV driver.*
				Change in daily taxi/FHV VMT with passengers in the CBD relative to No Action Alternative: Scenarios included in EA	-21,498 (-6.6%)	+15,020 (+4.6%)	-11,371 (-3.5%)	-54,476 (-16.8%)	-25,621 (-7.9%)	+4,962 (+1.5%)	-27,757 (-8.6%)			-904 (-0.3%)		
				Net change in daily taxi/FHV trips to CBD relative to scenarios included in EA: Additional analysis to assess effects of caps or exemptions	Tolls capped at 1x / Day: +2%	—	—	Tolls capped at 1x / Day: +3% Exempt: +50%	—	—	Tolls capped at 1x / Day: +2%			NA		

Note:  
\* The Final EA provides information on the types of vehicles licensed by the New York City Taxi and Limousine Commission (TLC) in Chapter 6, “Economic Conditions,” Section 6.3.2.6, on page 6-32. These include yellow cabs, for which TLC has issued medallions; green cabs, which are street-hail livery cabs that begin their trips outside the core service area of Manhattan; and FHV, which provide pre-arranged service. Vehicles licensed as app-based, or high-volume, FHV operate from bases that dispatch more than 10,000 trips a day. (<https://www.nyc.gov/site/tlc/businesses/high-volume-for-hire-services.page>). Currently there are two TLC-licensed high-volume FHV: Lyft and Uber. In this reevaluation document and the Final EA, the term “taxi” is used to refer to yellow cabs, green cabs, and FHV that are not high-volume FHV and the term “FHV” refers to app-based, high-volume FHV (i.e., Lyft and Uber).

Table 1.1. Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
17 – Environmental Justice (Cont'd)	Increases or decreases in traffic, as a result of traffic diversions, in communities already overburdened by pre-existing air pollution and chronic diseases	Certain environmental justice communities would benefit from decreased traffic; some communities that are already overburdened by pre-existing air pollution and chronic diseases could see an adverse effect as a result of increased traffic.	The specific census tracts that would experience increased or decreased traffic change slightly depending on the tolling scenario. The following communities could have census tracts that merit place-based mitigation: High Bridge–Morrisania, Crotona–Tremont, Hunts Point–Mott Haven, Pelham–Throgs Neck, Northeast Bronx, East Harlem, Randall’s Island, Lower East Side/Lower Manhattan, Downtown Brooklyn–Fort Greene, South Williamsburg, Orange, East Orange, Newark, and Fort Lee.	Narrative	Census tracts with pre-existing air pollutant and chronic disease burdens that would benefit from reduced traffic, and those affected by increased traffic would vary somewhat, but the identified communities remain largely the same across tolling scenarios. Under Tolling Scenario G, Fort Lee would not experience increases.							Yes	<p><b>Mitigation needed.</b></p> <p><b>Regional Mitigation</b></p> <p>TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final toll structure; this will reduce truck diversions.</p> <p>NYCDOT will expand the NYC Clean Trucks Program to accelerate the replacement of eligible diesel trucks, which travel on highways in certain environmental justice communities where the Project is projected to increase truck traffic, to lower-emission electric, hybrid, compressed natural gas, and clean diesel vehicles.</p> <p>NYCDOT will expand its off-hours delivery program in locations where the Project is projected to increase truck diversions to reduce daytime truck traffic and increase roadway safety in certain environmental justice communities.</p> <p><b>Place-based Mitigation</b></p> <p>TBTA will toll vehicles traveling northbound on the FDR Drive that exit at East Houston Street and then turn to immediately travel south on FDR Drive; this will mitigate modeled non-truck traffic increases on the FDR Drive between the Brooklyn Bridge and East Houston Street.</p> <p>NYCDOT will coordinate to replace diesel-burning transport refrigeration units (TRUs) at Hunts Point with cleaner vehicles.</p> <p>NYSDOT will coordinate to expand electric truck charging infrastructure.</p> <p>The Project Sponsors will coordinate to install roadside vegetation to improve near-road air quality.</p> <p>The Project Sponsors will renovate parks and greenspaces.</p> <p>The Project Sponsors will install or upgrade air filtration units in schools.</p> <p>The Project Sponsors will coordinate to expand existing asthma case management programs and create new community-based asthma programming through a neighborhood asthma center in the Bronx.</p>	Census tracts with pre-existing air pollutant and chronic disease burdens that would benefit from reduced traffic, and those affected by increased traffic vary somewhat from the Final EA, as anticipated.	Yes	<p><b>No additional mitigation needed.</b></p> <p>The Project Sponsors will implement the mitigation commitments of the Final EA and FONSI listed under “Mitigation and Enhancements” in this table).</p>

Note: Based on analysis of the adopted toll structure, communities and census tracts where place-based mitigation measures will be implemented have been confirmed – the specific siting of mitigation measures is being determined through analysis of data on needs and feasibility and coordination among the Project Sponsors, the Environmental Justice Community Group (representing the 10-county environmental justice study area), and relevant stakeholders and implementing agencies; see “Benefits and Allocation of Funding for Mitigation Measures,” above.

**OVERALL PROJECT ENHANCEMENT.** The Project Sponsors commit to ongoing monitoring and reporting of potential effects of the Project, including for example, traffic entering the CBD, vehicle-miles traveled in the CBD; transit ridership from providers across the region; bus speeds within the CBD; air quality and emissions trends; parking; and Project revenue. Data will be collected in advance and after implementation of the Project. A formal report on the effects of the Project will be issued one year after implementation and then every two years. In addition, a reporting website will make data, analysis, and visualizations available in open data format to the greatest extent practicable. Updates will be provided on at least a bi-annual basis as data becomes available and analysis is completed. This data will also be used to support an adaptive management approach to monitoring the efficacy of mitigation, and adjustments as warranted.

## 2 Project Description: Adopted Toll Structure

The CBD Tolling Program will implement a vehicular tolling program to reduce traffic congestion in the Manhattan CBD, consistent with the Traffic Mobility Act. Traffic congestion is expected to be reduced by disincentivizing use of vehicles within the CBD by imposition of tolls, and concurrently by investments in transit that will incentivize use of transit systems instead of driving. The Project purpose is to reduce traffic congestion in the Manhattan CBD in a manner that will generate revenue for future transportation improvements, pursuant to acceptance into FHWA's Value Pricing Pilot Program (VPPP).

The Manhattan CBD consists of the geographic area of Manhattan south and inclusive of 60th Street, but not including Franklin D. Roosevelt Drive (FDR Drive), West Side Highway/Route 9A, the Battery Park Underpass, and any surface roadway portion of the Hugh L. Carey Tunnel connecting to West Street (the West Side Highway/Route 9A).

TBTA will toll vehicles entering the Manhattan CBD via a cashless tolling system. The toll amount will be variable, with higher tolls charged during peak periods when congestion is greater. The toll will apply to all registered vehicles (i.e., those with license plates), with the exception of qualifying vehicles transporting persons with disabilities, qualifying authorized emergency vehicles, transit buses, and specialized government vehicles. Passenger vehicles will be tolled no more than once a day. Taxis and FHV's will be tolled for each trip entering, leaving, and within the CBD made with passengers.<sup>2</sup> Based on the average number of trips taxis and FHV's make each day, the toll amount for taxis and FHV's is equivalent to the once-daily toll rate for automobiles. Under the adopted toll structure, taxi and FHV tolls will be paid by the passenger rather than the driver. The toll structure as adopted by the TBTA Board on March 27, 2024 is shown in **Figure 2.1** below.

The parameters of the adopted toll structure fall within the range of tolling scenarios evaluated in the Final EA, as illustrated in **Table 2.1** below, which is the re-creation of Final EA Table 2-3, "Tolling Scenarios Evaluated for the CBD Tolling Alternative" (from page 2-31 of the Final EA) with the adopted toll structure added. As shown in the table, the adopted toll structure has a simplified two-time-period structure (i.e., peak and overnight) on weekdays, as opposed to the three-time-period (i.e., peak, off-peak, and overnight) weekday structures studied in the Final EA. As there is no longer an off-peak period on weekdays, the weekday peak and overnight periods are longer than those studied in the Final EA and FONSI. The peak toll rates in the adopted toll structure are within the range of those presented in the Final EA and the overnight rates are lower than both the off-peak and overnight rates presented in the Final EA. Other parameters

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<sup>2</sup> The Final EA provides information on the types of vehicles licensed by the New York City Taxi and Limousine Commission (TLC) in Chapter 6, "Economic Conditions," Section 6.3.2.6, on page 6-32. These include yellow cabs, for which TLC has issued medallions; green cabs, which are street-hail livery cabs that begin their trips outside the core service area of Manhattan; and FHV's, which provide pre-arranged service. Vehicles licensed as app-based, or high-volume, FHV's operate from bases that dispatch more than 10,000 trips a day. (<https://www.nyc.gov/site/tlc/businesses/high-volume-for-hire-services.page>). Currently there are two TLC-licensed high-volume FHV's: Lyft and Uber. In this reevaluation document and the Final EA, the term "taxi" is used to refer to yellow cabs, green cabs, and FHV's that are not high-volume FHV's and the term "FHV" refers to high-volume FHV's (i.e., Lyft and Uber).

related to potential exemptions and caps on the number of tolls per day for certain vehicles also fall within the range presented in the Final EA and FONSI.

The adopted toll structure would use the same tolling infrastructure and tolling system equipment described and evaluated in the Final EA. Construction for the Project began in July 2023 and the construction of tolling infrastructure and tolling system equipment is now complete. Power and communications are nearing completion and testing is under way.

The adopted toll structure continues to meet the Project purpose, needs, and objectives. See **Table 2.2**, which is a re-creation of Final EA Table ES-3, “Comparison of Evaluation Results for the No Action and CBD Tolling Alternatives” (from page ES-14 of the Final EA) with the adopted toll structure added.

Figure 2.1 Adopted Toll Structure

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY CENTRAL BUSINESS DISTRICT (CBD) CHARGES			
a	E-ZPass Customers	CBD ENTRY CHARGE	TUNNEL CROSSING CREDIT
	VEHICLE CLASSIFICATION		
1	Passenger and other vehicles, including sedans, sport utility vehicles, station wagons, hearses, limousines, pickup trucks with factory beds, pickup trucks with caps below the roofline and not extending over the sides, and vans without an extended roof above the windshield Peak period (5am-9pm weekdays, 9am-9pm weekends) Peak period for registered Low-Income Discount Plan participants using an eligible vehicle, 11th trip and trips thereafter in a calendar month (5am-9pm weekdays, 9am-9pm weekends) Peak period per-trip credit (maximum daily credit \$5.00) If entering the CBD via the Lincoln Tunnel or Holland Tunnel If entering or exiting the CBD via the Queens-Midtown Tunnel or Hugh L. Carey Tunnel Overnight period (9pm-5am weekdays, 9pm-9am weekends)	\$15.00  \$7.50  \$3.75	   \$5.00 \$2.50
2	Single-unit trucks, including non-articulated trucks, pickup trucks with modified beds, vans with modified body behind the drivers cab, pickup trucks with caps above the roofline or extending over the sides, and vans with an extended roof above the windshield Peak period (5am-9pm weekdays, 9am-9pm weekends) Peak period per-trip credit If entering the CBD via the Lincoln Tunnel or Holland Tunnel If entering or exiting the CBD via the Queens-Midtown Tunnel or Hugh L. Carey Tunnel Overnight period (9pm-5am weekdays, 9pm-9am weekends)	\$24.00   \$6.00	   \$12.00 \$6.00
3	Multi-unit trucks, including articulated trucks where a power unit is carrying one or more trailers Peak period (5am-9pm weekdays, 9am-9pm weekends) Peak period per-trip credit If entering the CBD via the Lincoln Tunnel or Holland Tunnel If entering or exiting the CBD via the Queens-Midtown Tunnel or Hugh L. Carey Tunnel Overnight period (9pm-5am weekdays, 9pm-9am weekends)	\$36.00   \$9.00	   \$20.00 \$10.00
4	Buses, including vehicles registered with the DMV and plated as a bus, omnibus, or have other designated official plates Peak period (5am-9pm weekdays, 9am-9pm weekends) Peak period per-trip credit If entering the CBD via the Lincoln Tunnel or Holland Tunnel If entering or exiting the CBD via the Queens-Midtown Tunnel or Hugh L. Carey Tunnel Overnight period (9pm-5am weekdays, 9pm-9am weekends) Licensed sightseeing buses Peak period (5am-9pm weekdays, 9am-9pm weekends) Peak period per-trip credit If entering the CBD via the Lincoln Tunnel or Holland Tunnel If entering or exiting the CBD via the Queens-Midtown Tunnel or Hugh L. Carey Tunnel Overnight period (9pm-5am weekdays, 9pm-9am weekends)	\$24.00   \$6.00  \$36.00   \$9.00	   \$12.00 \$6.00   \$20.00 \$10.00
5	Motorcycles Peak period (5am-9pm weekdays, 9am-9pm weekends) Peak period per-trip credit (maximum daily credit \$2.50) If entering the CBD via the Lincoln Tunnel or Holland Tunnel If entering or exiting the CBD via the Queens-Midtown Tunnel or Hugh L. Carey Tunnel Overnight period (9pm-5am weekdays, 9pm-9am weekends)	\$7.50   \$1.75	   \$2.50 \$1.25
<p><i>E-ZPass CBD entry charges are available subject to terms, conditions, and agreements established by the Authority.</i></p> <p><i>The Authority reserves the right to determine whether any vehicle is of unusual or unconventional design, weight, or construction and therefore not within any of the listed categories. The Authority also reserves the right to determine the CBD charge for any such vehicle of unusual or unconventional design, weight, or construction. Any single unit vehicle identified as belonging to Classes 1, 2, or 5 will be up-classed to the next toll class when towing a trailer or another vehicle.</i></p> <p><i>Daily toll cap of once per day for Class 1 and Class 5 vehicles. Caps for other vehicles are subject to change pursuant to the adaptive management approach to mitigating project effects, as committed to in the Final Environmental Assessment.</i></p> <p><i>CBD entry charges and tunnel credits are subject to a variable percentage increase/decrease of up to 10% for up to one year after implementation pursuant to the adaptive management approach to mitigating project effects, as committed to in the Final Environmental Assessment.</i></p> <p><i>The Low-Income Discount Plan shall continue for five years as committed to in the Final Environmental Assessment.</i></p> <p><i>The Authority reserves the right to charge a 25% higher CBD charge during Gridlock Alert Days. Each year, the NYCDOT identifies Gridlock Alert Days during the UN General Assembly and throughout the holiday season when heavy traffic is expected in Manhattan. On Gridlock Alert Days, consider walking, biking, or taking mass transit for any trips in Manhattan.</i></p> <p><i>Qualifying authorized emergency vehicles and qualifying vehicles transporting persons with disabilities are exempt pursuant to Vehicle and Traffic Law § 1704-a (2).</i></p> <p><i>Qualifying authorized commuter buses and specialized government vehicles, as determined by the Authority, are exempt.</i></p>			



Figure 2.1 Adopted Toll Structure (Cont'd)

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY CENTRAL BUSINESS DISTRICT (CBD) CHARGES			
b Customers Using Fare Media Other Than E-ZPass		CBD ENTRY CHARGE	PER TRIP CHARGE PLAN* (TO/FROM/WITHIN/THROUGH CBD)
VEHICLE CLASSIFICATION			
1	Passenger and other vehicles, including sedans, sport utility vehicles, station wagons, hearses, limousines, pickup trucks with factory beds, pickup trucks with caps below the roofline and not extending over the sides, and vans without an extended roof above the windshield Peak period (5am-9pm weekdays, 9am-9pm weekends) Overnight period (9pm-5am weekdays, 9pm-9am weekends)	\$22.50 \$5.50	
2	Single-unit trucks, including non-articulated trucks, pickup trucks with modified beds, vans with modified body behind the drivers cab, pickup trucks with caps above the roofline or extending over the sides, and vans with an extended roof above the windshield Peak period (5am-9pm weekdays, 9am-9pm weekends) Overnight period (9pm-5am weekdays, 9pm-9am weekends)	\$36.00 \$9.00	
3	Multi-unit trucks, including articulated trucks where a power unit is carrying one or more trailers Peak period (5am-9pm weekdays, 9am-9pm weekends) Overnight period (9pm-5am weekdays, 9pm-9am weekends)	\$54.00 \$13.50	
4	Buses, including vehicles registered with the DMV and plated as a bus, omnibus, or have other designated official plates Peak period (5am-9pm weekdays, 9am-9pm weekends) Overnight period (9pm-5am weekdays, 9pm-9am weekends) Licensed sightseeing buses Peak period (5am-9pm weekdays, 9am-9pm weekends) Overnight period (9pm-5am weekdays, 9pm-9am weekends)	\$36.00 \$9.00 \$54.00 \$13.50	
5	Motorcycles Peak period (5am-9pm weekdays, 9am-9pm weekends) Overnight period (9pm-5am weekdays, 9pm-9am weekends)	\$11.25 \$2.75	
	NYC TLC taxis, green cabs, for-hire vehicles (FHV's) Taxis, green cabs, and FHV's on trips FHV's on trips dispatched by high-volume for-hire services (HVFHSs)		\$1.25 \$2.50
The Authority reserves the right to determine whether any vehicle is of unusual or unconventional design, weight, or construction and therefore not within any of the listed categories. The Authority also reserves the right to determine the CBD charge for any such vehicle of unusual or unconventional design, weight, or construction. Any single unit vehicle identified as belonging to Classes 1, 2, or 5 will be up-classed to the next toll class when towing a trailer or another vehicle.			
Daily toll cap of once per day for Class 1 and Class 5 vehicles. Caps for non-passenger vehicles are subject to change pursuant to the adaptive management approach to mitigating project effects, as committed to in the Final Environmental Assessment.			
NYC TLC taxi, green cab, and FHV tolls are to be paid by the passenger pursuant to Rules of City of NY Taxi & Limousine Commn (35 RCNY) §§ 58-26 (f), 59A-23 (b), 59D-17 (c).			
CBD entry charges and per trip charges are subject to a variable percentage increase/decrease of up to 10% for up to one year after implementation pursuant to the adaptive management approach to mitigating project effects, as committed to in the Final Environmental Assessment.			
The Authority reserves the right to charge a 25% higher CBD charge during Gridlock Alert Days. Each year, the NYCDOT identifies Gridlock Alert Days during the UN General Assembly and throughout the holiday season when heavy traffic is expected in Manhattan. On Gridlock Alert Days, consider walking, biking, or taking mass transit for any trips in Manhattan.			
Qualifying authorized emergency vehicles and qualifying vehicles transporting persons with disabilities are exempt pursuant to Vehicle and Traffic Law § 1704-a (2).			
Qualifying authorized commuter buses and specialized government vehicles, as determined by the Authority, are exempt.			
*Subject to full execution of and compliance with plan agreement by FHV bases and taxi technology system providers.			

**Table 2.1 - Modified Final EA Table 2-3. Tolling Scenarios Evaluated for the CBD Tolling Alternative – with the Adopted Toll Structure Added**

PARAMETER	SCENARIO A Base Plan	SCENARIO B Base Plan with Caps and Exemptions	SCENARIO C Low Crossing Credits for Vehicles Using Tunnels to Access the CBD, with Some Caps and Exemptions	SCENARIO D High Crossing Credits for Vehicles Using Tunnels to Access the CBD	SCENARIO E High Crossing Credits for Vehicles Using Tunnels to Access the CBD, with Some Caps and Exemptions	SCENARIO F High Crossing Credits for Vehicles Using Manhattan Bridges and Tunnels to Access the CBD, with Some Caps and Exemptions	SCENARIO G Base Plan with Same Tolls for All Vehicle Classes	ADOPTED TOLL STRUCTURE
<b>Time Periods<sup>1</sup></b>								
Peak: Weekdays	6 AM – 8 PM	6 AM – 8 PM	6 AM – 8 PM	6 AM – 8 PM	6 AM – 8 PM	6 AM – 10 AM; 4 PM – 8 PM	6 AM – 8 PM	5 AM – 9 PM <sup>2</sup>
Peak: Weekends	10 AM – 10 PM	10 AM – 10 PM	10 AM – 10 PM	10 AM – 10 PM	10 AM – 10 PM	10 AM – 10 PM	10 AM – 10 PM	9 AM – 9 PM
Off Peak: Weekdays	8 PM – 10 PM	8 PM – 10 PM	8 PM – 10 PM	8 PM – 10 PM	8 PM – 10 PM	10 AM – 4 PM	8 PM – 10 PM	9 PM – 5 AM
Overnight: Weekdays	10 PM – 6 AM	10 PM – 6 AM	10 PM – 6 AM	10 PM – 6 AM	10 PM – 6 AM	8 PM – 6 AM	10 PM – 6 AM	9 PM – 9 AM
Overnight: Weekends	10 PM – 10 AM	10 PM – 10 AM	10 PM – 10 AM	10 PM – 10 AM	10 PM – 10 AM	10 PM – 10 AM	10 PM – 10 AM	9 PM – 9 AM
<b>Potential Crossing Credits</b>								
Credit Toward CBD Toll for Tolls Paid at Tunnel Entries	No	No	Yes - Low	Yes - High	Yes - High	Yes - High	No	Yes - Low
Credit Toward CBD Toll for Tolls Paid at Bridges to Manhattan	No	No	No	No	No	Yes - High	No	No
<b>Potential Exemptions and Limits (Caps) on Number of Tolls per Day<sup>4,5,6</sup></b>								
Autos, motorcycles, and commercial vans	Once per day	Once per day	Once per day	Once per day	Once per day	Once per day	Once per day	Once per day
Taxis	No cap	Once per day	Exempt	No cap	Exempt	Once per day	No cap	\$1.25 per trip toll on trips to, within, or from the CBD (see note 4)
FHVs	No cap	Once per day	Three times per day	No cap	Three times per day	Once per day	No cap	\$2.50 per trip toll on trips to, within, or from the CBD (see note 4)
Small and large trucks	No cap	Twice per day	No cap	No cap	No cap	Once per day	No cap	No cap
Buses	No cap	Exempt	No cap	No cap	Transit buses – Exempt No cap on other buses	Exempt	No cap	Certain buses – Exempt (see note 5)

PARAMETER	SCENARIO A	SCENARIO B	SCENARIO C	SCENARIO D	SCENARIO E	SCENARIO F	SCENARIO G	ADOPTED TOLL STRUCTURE
	Base Plan	Base Plan with Caps and Exemptions	Low Crossing Credits for Vehicles Using Tunnels to Access the CBD, with Some Caps and Exemptions	High Crossing Credits for Vehicles Using Tunnels to Access the CBD	High Crossing Credits for Vehicles Using Tunnels to Access the CBD, with Some Caps and Exemptions	High Crossing Credits for Vehicles Using Manhattan Bridges and Tunnels to Access the CBD, with Some Caps and Exemptions	Base Plan with Same Tolls for All Vehicle Classes	
Approximate Toll Rate Assumed for Autos, Commercial Vans, and Motorcycles <sup>3</sup>								
Peak	\$9	\$10	\$14	\$19	\$23	\$23	\$12	\$15
Off Peak	\$7	\$8	\$11	\$14	\$17	\$17	\$9	\$3.75
Overnight	\$5	\$5	\$7	\$10	\$12	\$12	\$7	\$3.75
Approximate Toll Rate Assumed for Trucks (Small Trucks/Large Trucks) <sup>3</sup>								
Peak	\$18 / \$28	\$20 / \$30	\$28 / \$42	\$38 / \$57	\$46 / \$69	\$65 / \$82	\$12 / \$12	\$24 / \$36
Off Peak	\$14 / \$21	\$15 / \$23	\$21 / \$32	\$29 / \$43	\$35 / \$52	\$49 / \$62	\$9 / \$9	
Overnight	\$9 / \$14	\$10 / \$15	\$14 / \$21	\$19 / \$29	\$23 / \$35	\$33 / \$41	\$7 / \$7	\$6 / \$9

## Notes:

- <sup>1</sup> Tolls would be higher during peak periods when traffic is greatest. All tolling scenarios include a higher toll on designated “Gridlock Alert” days, although the modeling conducted for the Project does not reflect this higher toll since it considers typical days rather than days with unusually high traffic levels.
- <sup>2</sup> The adopted toll structure has a simplified two-time-period structure (i.e., peak and overnight) on weekdays, as opposed to the three-time-period (i.e., peak, off-peak, and overnight) weekday structures studied in the Final EA. As there is no longer an off-peak period on weekdays, the weekday peak and overnight periods are longer than those studied in the Final EA. The transportation modeling conducted for the adopted toll structure accounts for this change in the peak and off-peak periods and thus the model results reflect this change.
- <sup>3</sup> Toll rates are for vehicles using E-ZPass and are rounded. For all tolling scenarios, different rates would apply for vehicles not using E-ZPass.
- <sup>4</sup> The Final EA provides information on the types of vehicles licensed by the New York City Taxi and Limousine Commission (TLC) in Chapter 6, “Economic Conditions,” Section 6.3.2.6, on page 6-32. These include yellow cabs, for which TLC has issued medallions; green cabs, which are street-hail livery cabs that begin their trips outside the core service area of Manhattan; and FHV, which provide pre-arranged service. Vehicles licensed as app-based, or high-volume, FHV, operate from bases that dispatch more than 10,000 trips a day. (<https://www.nyc.gov/site/tlc/businesses/high-volume-for-hire-services.page>). Currently there are two TLC-licensed high-volume FHV: Lyft and Uber. In this reevaluation document and the Final EA, the term “taxi” is used to refer to yellow cabs, green cabs, and FHV that are not high-volume FHV and the term “FHV” refers to app-based, high-volume FHV (i.e., Lyft and Uber).
- <sup>5</sup> The per-trip tolls for taxis and FHV in the adopted toll structure would be equivalent to the auto peak rate of \$15 (based on NYC Taxi and Limousine Commission analysis of trips made by TLC-licensed vehicles in May 2023: for taxis the average number of trips with passengers to/from/within the CBD is 12, and for FHV it is 6).
- <sup>6</sup> With the adopted toll structure, qualifying authorized emergency vehicles and qualifying vehicles transporting people with disabilities would be exempt from the toll. Specialized government vehicles would also be exempt. School buses contracted with the NYC Department of Education, commuter vans licensed with the NYC Taxi and Limousine Commission, and buses providing scheduled commuter services open to the public would also be exempt from the toll.



**Table 2.2 - Modified Final EA Table ES-3. Comparison of Evaluation Results for the No Action and CBD Tolling Alternatives – with the Adopted Toll Structure Added**

SCREENING CRITERION	NO ACTION ALTERNATIVE	CBD TOLLING (ACTION) ALTERNATIVE FINAL EA SCENARIOS	ADOPTED TOLL STRUCTURE
<b>Purpose and Need:</b> Reduce traffic congestion in the Manhattan CBD in a manner that will generate revenue for future transportation improvements	DOES NOT MEET	MEETS	MEETS
<b>Objective 1:</b> Reduce daily vehicle-miles traveled (VMT) within the Manhattan CBD Criterion: Reduce by 5% (relative to No Action)	DOES NOT MEET	MEETS	MEETS
<i>Daily VMT reduction (2023)</i>	0%	7.1% - 9.2%	8.9%
<b>Objective 2:</b> Reduce the number of vehicles entering the Manhattan CBD daily Criterion: Reduce by 10% (relative to No Action)	DOES NOT MEET	MEETS	MEETS
<i>Daily vehicle reduction (2023)</i>	0%	15.4% - 19.9%	17.3%
<b>Objective 3:</b> Create a funding source for capital improvements and generate sufficient annual net revenues to fund \$15 billion for capital projects for MTA's Capital Program	DOES NOT MEET	MEETS <sup>1</sup>	MEETS
<i>Net revenue to support MTA's Capital Program<sup>2</sup></i>	\$0	\$1.0 billion - \$1.5 billion	\$0.9 billion
<b>Objective 4:</b> Establish a tolling program consistent with the purposes underlying the New York State legislation entitled the "MTA Reform and Traffic Mobility Act"	DOES NOT MEET	MEETS	MEETS

Notes:

- 1 Although Final EA Tolling Scenario B would not meet Objective 3 with the toll rates identified and assessed in the Final EA, additional analysis was conducted to demonstrate that it would meet this objective with a higher toll rate; the resulting VMT reduction and revenue for that modified scenario would fall within the range of the other Final EA scenarios.
- 2 The net revenue needed to fund \$15 billion depends on a number of economic factors, including but not limited to interest rates and term. For the purposes of the Final EA, the modeling assumes the Project should provide at least \$1 billion annually in total net revenue, which would be invested or bonded to generate sufficient funds. The net revenue values provided in this table are rounded and based on Project modeling. Following completion of the Final EA, based on current interest rates and expected timing of projects, MTA's Chief Financial Officer has determined that annual net revenues in the range of \$0.9 billion should be sufficient to meet the Project's need to fund \$15 billion of capital projects for the MTA Capital Program.

### 3 Analysis Framework: General Methodology for Reevaluation

To evaluate the adopted toll structure’s effects in comparison to those described in the Final EA, the Project Sponsors used the same methodologies as used for the analyses in the Final EA. For each analysis topic, they considered the effects of the adopted toll structure in comparison to the effects for the seven tolling scenarios evaluated in the Final EA. If preliminary evaluation of the adopted toll structure demonstrated that effects would be same as, or less than, those described in the Final EA, more detailed quantified analysis (such as modeling) was not conducted. For any effects where the preliminary evaluation was not conclusive, additional quantified analysis was conducted to further explore the effect.

The following sections of this reevaluation describe the methodologies used for each analysis topic in more detail. Where relevant to the analyses, the reevaluation includes information comparing the Final EA results to results for the adopted toll structure. Those comparisons include tables from the Final EA with the addition of the adopted toll structure, as well as new tables, where appropriate, that were not included in the Final EA. Tables from the Final EA are provided using the same format and color palette as in the Final EA, with the same title as in the Final EA but are modified to indicate the addition of the adopted toll structure as follows:

***Table [X.X] - Modified Final EA Table [Number]. Table Title from Final EA – With Adopted Toll Structure Added***

PARAMETER FOR COMPARISON	FINAL EA	ADOPTED TOLL STRUCTURE

New tables that were not in the Final EA have new titles and, thus, do not reference the Final EA, use a different color palette and sequential table numbers, as follows:

***Table [X.X] - New Title as Appropriate***

PARAMETER FOR COMPARISON	FINAL EA	ADOPTED TOLL STRUCTURE

In addition, each section of this reevaluation presents the summary of effects table that was included in the Final EA, but updated to include the adopted toll structure (Table 1.1 in Section 1). In the Final EA, a summary of effects was included in three locations: in Table ES-5 of the “Executive Summary,” at the end of each relevant Final EA chapter, and in Table 16-1 of Chapter 16, “Summary of Effects.”

## 4A Transportation – Regional Transportation Effects and Modeling

Subchapter 4A of the Final EA presented the reasonably expected effects of implementing the CBD Tolling Alternative on the regional transportation system, including travel demand and mode choice. This section evaluates the effects of the adopted toll structure on the region's travel characteristics in comparison to the effects presented in the Final EA. Additional information is provided in **Appendix 4A**.

### METHODOLOGY

#### Final EA Methodology

Subchapter 4A of the Final EA described the methodology used for forecasting changes to the regional transportation system in Section 4A.2, "Methodology," with additional supporting information in Final EA Appendix 4A.1. As detailed in the Final EA, the methodology included the following:

- Forecasted changes in travel demand for No Action Alternative and Final EA tolling scenarios using the New York Best Practice Model (BPM).
- Identified reasonably expected effects of implementing the CBD Tolling Alternative on the regional transportation system, including travel demand, mode choice, and traffic diversion.
- Provided for use in the other analyses in the Final EA. As described in the Final EA in Chapter 3, "Environmental Analysis Framework," page 3-5, the Final EA evaluated multiple tolling scenarios within the CBD Tolling Alternative to identify the range of potential effects that could occur from implementing the CBD Tolling Alternative. Quantitative analyses related to traffic patterns (in Final EA Subchapters 4B through 4E as well as the local intersection analyses in Chapters 10, "Air Quality," and 12, "Noise") considered the tolling scenario that would result in the greatest potential negative effects for that particular topic of analysis.

#### Reevaluation Methodology

- Modeled the adopted toll structure using the same version of the BPM as was used for the Final EA. This allowed comparison of the results for the adopted toll structure to the results presented in each analysis included in the Final EA.
- Provided BPM results for the adopted toll structure for use in the reevaluation of the full range of topics from the Final EA.

## ANALYSIS AND RESULTS

The Final EA presented a summary of the modeling results for the No Action Alternative and Final EA tolling scenarios for the 28-county regional study area, with information for subareas within that study area. Information presented included VMT, mode share for journeys to the Manhattan CBD, and number of daily vehicles entering the CBD. This and the more detailed model results were used for the quantified analyses presented in other chapters of the Final EA, including analyses of the CBD Tolling Alternative's effects on traffic, transit, pedestrians, parking, air quality, noise, social conditions, economic conditions, and environmental justice.

For the reevaluation, the BPM was used to calculate the same information for the adopted toll structure as was estimated for the No Action Alternative and tolling scenarios in the Final EA. This information for the adopted toll structure was then used for the quantified analyses of the same topics in the reevaluation. Detailed results are provided in **Appendix 4A**.

**Table 4A.1** presents information from the Final EA Table ES-5 summarizing the conclusions related to regional transportation effects and modeling, now modified to include the adopted toll structure.

## FINDINGS

For the reevaluation, the Project Sponsors added the adopted toll structure to the same regional transportation model they used for evaluations in the Final EA, the BPM. The new modeling for the reevaluation produced a full set of results that allowed comparison to the modeling results evaluated in the Final EA. The results from the reevaluation analysis demonstrate that the adopted toll structure's effects on regional transportation patterns would be within the range of effects of the tolling scenarios studied in the Final EA. Key objectives for the Project as identified in the Final EA/FONSI are reducing the number of vehicles coming into the Manhattan CBD and reducing daily VMT in the CBD. The Final EA scenarios were predicted to reduce the number of daily vehicles entering the Manhattan CBD by approximately 15 to 20 percent. The adopted toll structure is predicted to reduce the number of vehicles entering the CBD by approximately 17 percent. Predicted reduction of VMT for the tolling scenarios in the Final EA ranged from approximately 7.1 to 9.2 percent. The adopted toll structure is predicted to reduce VMT in the CBD by approximately 8.9 percent. More details are in **Table 4A.1**.

Table 4A.1 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA Chapter	Topic	Summary of Effects	Location	Data Shown in Table	Final EA Tolling Scenario							Potential Adverse Effect	Mitigation and Enhancements	Adopted Toll Structure	Potential Adverse Effect	Mitigation and Enhancements
					A	B	C	D	E	F	G					
4A – Transportation: Regional Transportation Effects and Modeling	Vehicle Volumes	▪ Decreases in daily vehicle trips to Manhattan CBD overall.	Crossing locations to Manhattan CBD	% Increase or decrease in daily vehicles entering the Manhattan CBD relative to No Action Alternative	-15%	-16%	-17%	-19%	-20%	-18%	-17%	No	No mitigation needed. Beneficial effects	-17%	No	No mitigation needed. Same as Final EA
	Auto Journeys to CBD		Manhattan CBD	% Increase or decrease in worker auto journeys to Manhattan CBD relative to No Action Alternative	-5%	-5%	-7%	-9%	-11%	-10%	-6%	No	No mitigation needed. Beneficial effects	-6%	No	No mitigation needed. Same as Final EA
				Absolute increase or decrease in daily worker auto trips to Manhattan CBD relative to No Action Alternative	-12,571	-12,883	-17,408	-24,017	-27,471	-24,433	-14,578			-16,447		
	Truck Trips Through CBD	▪ Some diversions to different crossings to Manhattan CBD or around the Manhattan CBD altogether, depending on tolling scenario. As traffic, including truck trips, increase on some circumferential highways, simultaneously there is a reduction in traffic on other highway segments to the CBD.	Manhattan CBD	Increase or decrease in daily truck trips through Manhattan CBD (without origin or destination in the CBD) relative to No Action Alternative	-4,645 (-55%)	-4,967 (-59%)	-5,253 (-63%)	-5,687 (-68%)	-6,604 (-79%)	-6,784 (-81%)	-1,734 (-21%)	No	No mitigation needed. Beneficial effects	-4,627 (-55%)	No	No mitigation needed. Same as Final EA
	Transit Journeys		Manhattan CBD	% Increase or decrease in daily Manhattan CBD-related transit journeys relative to No Action Alternative	+1.2%	+1.2%	+1.7%	+2.2%	+2.5%	+2.1%	+1.5%	No	No mitigation needed. No adverse effects	+1.6%	No	No mitigation needed. Same as Final EA
	Traffic Results		Manhattan CBD	% Increase or decrease in daily VMT relative to No Action Alternative	-7.8%	-7.6%	-8.0%	-8.7%	-9.2%	-7.1%	-8.4%	No	No mitigation needed. Beneficial effects in Manhattan CBD, New York City (non-CBD), north of New York City, and Connecticut; although there would be VMT increases in Long Island and New Jersey, the effects would not be adverse.	-8.9%	No	No mitigation needed. Same as Final EA
		NYC (non-CBD)	-0.3%		-0.2%	-0.7%	-0.9%	-1.0%	-0.7%	-0.3%	-0.4%					
		NY north of NYC	-0.2%		-0.2%	-0.4%	-0.6%	-0.8%	-0.5%	-0.3%	-0.4%					
		Long Island	+0.1%		0.0%	-0.1%	-0.2%	-0.2%	0.0%	0.0%	0.0%					
		New Jersey	+0.0%		+0.0%	+0.2%	+0.2%	+0.1%	+0.2%	+0.1%	+0.1%					
		Connecticut	-0.1%		-0.2%	-0.2%	-0.2%	-0.2%	0.0%	-0.2%	-0.3%					
		▪ Overall decrease in VMT in the Manhattan CBD and region overall in all tolling scenarios and some shift from vehicle to transit mode.														

## 4B Transportation – Highways and Local Intersections

Subchapter 4B of the Final EA presented the assessment of the CBD Tolling Alternative's potential effect on traffic operations on highways and local intersections. This section evaluates the effects of the adopted toll structure on the same key highway segments. It also examines the potential changes in traffic operations at local intersections resulting from the adopted toll structure. Additional information supporting the analyses conducted for the reevaluation is provided in **Appendix 4B**.

### METHODOLOGY

#### Final EA Methodology

The methodology used to evaluate the effects of the CBD Tolling Alternative on traffic operations is described in Subchapter 4B of the Final EA in two sections: the methodology for the highway analysis is presented beginning on page 4B-18 in Section 4B.4.1, "Methodology," and the methodology for the local intersection analysis is presented beginning on page 4B-82 in Section 4B.6.1, "Methodology." See also the summary of the methodology beginning on page 4B-1 in Subchapter 4B. In summary, the Final EA analysis methodology included the following:

#### *Highways*

1. Used BPM output to predict changes in traffic volumes at bridges, tunnels, and highways approaching the CBD and bypassing the CBD.
2. Calibrated model results to account for over- or under-assignment by the BPM relative to observed conditions.
3. Used understanding of likely diversions, BPM results, and community concerns to identify specific highway segments for analysis (see Final EA Appendix 4B.1, pages 4B.1-1 through 4B.1-3).
4. Determined the tolling scenario that would be representative of those with the highest potential to increase traffic along certain alternate routes and at local intersections. The highway assessment considered the effects of the CBD Tolling Alternative using the tolling scenario with the highest potential diverted traffic volumes, Tolling Scenario D.
5. Conducted modeling analysis using Vissim model or Highway Capacity Software (HCS) model.
6. Based on significance criteria used in past environmental reviews conducted TBTA and NYSDOT, in consultation with NYCDOT, related to the increase in delays, identified adverse effects (see Final EA Subchapter 4B, Section 4B.4.1, pages 4B-20 and 4B-21).
7. Where potential adverse effects were identified, identified measures to avoid, reduce, or mitigate those effects.

### ***Local Intersections***

1. Used BPM output to predict changes in traffic volumes at bridges, tunnels, and highways approaching the CBD and bypassing the CBD.
2. Calibrated model results and assigned traffic to local routes.
3. In consultations with NYCDOT, identified and analyzed 102 local intersections within and outside the Manhattan CBD, grouping them functionally into 15 local study areas to be assessed.
4. Determined which Final EA tolling scenario to analyze, based on the scenario with the highest number of intersection locations with an increase of 50 or more vehicles. Using this method, Tolling Scenario D, which was also representative of Tolling Scenarios E and F, was identified as having the most number of intersection locations with an increase of 50 or more vehicles. Therefore, all 102 intersections were analyzed for Tolling Scenario D. An additional analysis was performed in the Downtown Brooklyn study area for Tolling Scenario C since that tolling scenario produced a larger number of intersections with an increase of 50 or more vehicles (see Final EA Subchapter 4B, Section 4B.6.3, "Potential Traffic Effects at Intersections," first paragraph on page 4B-95). As described in the Final EA, the analysis of potential effects on traffic intersection operations was based on the tolling scenario that would result in the greatest increase in vehicle volumes at the intersections in the study area. This methodology resulted in identification of the most potential negative effects of the CBD Tolling Alternative.
5. Conducted quantified analysis for the 102 intersections using Synchro model.
6. Based on significance criteria used in past environmental reviews conducted TBTA and NYSDOT, in consultation with NYCDOT, related to the increase in delays, identified adverse effects (see Final EA Subchapter 4B, Section 4B.6.1, pages 4B-85 and 4B-86).
7. Where potential adverse effects were identified, identified measures to avoid, reduce, or mitigate those effects.

## **Reevaluation Methodology**

### ***Highways***

1. The first step in the methodology for reevaluation of highways was the same as in the Final EA.
2. The second step in the methodology for reevaluation of highways was the same as in the Final EA.
3. Determined incremental traffic volumes for the adopted toll structure at the 10 highway segments identified and evaluated in the Final EA.
4. For highway segments where a higher incremental volume would occur under the adopted toll structure, and for all highway segments predicted to have an adverse effect in the Final EA, conducted further evaluation of the effects resulting from adopted toll structure.

### ***Local Intersections***

1. The first step in the methodology for reevaluation of intersections was the same as in the Final EA.
2. Calibrated model results and assigned traffic to local routes in the 15 study areas identified in the Final EA

3. Identified intersections with higher increments under the adopted toll structure than in Tolling Scenario C or D, as appropriate, in the Final EA.
4. Conducted quantified analysis using Synchro models of the following:
  - o Study areas in which any intersection in the study area had a higher incremental volume than described in the Final EA for that intersection.
  - o Study areas in which the Final EA predicted a potential adverse effect at one or more intersections.

## ANALYSIS AND RESULTS

### Highways

The Final EA identified three highway segments with potential adverse effects for Tolling Scenario D, which was also representative of Tolling Scenarios E and F. Tolling Scenario D was used to represent the highest traffic increases for the highways around the Manhattan CBD and worst-case scenario. This reevaluation of the adopted toll structure identifies potential adverse effects at the same three highway segments, as discussed below. No additional mitigation is needed beyond the mitigation commitments of the Final EA.

For the reevaluation, seven highway segments screened in for further evaluation based on step 4 of the reevaluation methodology (see **Table 4B.1**). Of these, additional analysis identified potential adverse effects for the same three segments as described in the Final EA: Queens-Midtown Tunnel–Long Island Expressway (I-495), George Washington Bridge/Cross Bronx Expressway, and FDR Drive between East 10th Street and Brooklyn Bridge. **Table 4B.1** below compares the results of the screening analysis conducted in the Final EA to the results with the reevaluation.

Under both the adopted toll structure and the tolling scenario modeled in the Final EA, an adverse effect was found in one period on the Long Island Expressway (I-495) at the Queens-Midtown Tunnel, though the time periods differed and the potential effect under the adopted toll structure was smaller than shown in the Final EA. As shown in **Table 4B.1**, on the Long Island Expressway (I-495) at the Queens-Midtown Tunnel, the adopted toll structure would result in an adverse effect in the morning peak hour, with a delay of approximately 4 minutes (an increase in traffic volume of approximately 8.5 percent over the No Action Alternative). At this location under Tolling Scenario D, no adverse effect was predicted for the morning peak hour. During the midday peak hour, the Final EA showed an adverse effect with a delay of approximately 4 minutes and an increase in traffic volume of 15 percent over the No Action Alternative. This adverse effect would no longer occur with the adopted toll structure.

For the other two highway segments—the George Washington Bridge/Cross Bronx Expressway and FDR Drive between East 10th Street and Brooklyn Bridge—the effects would be reduced under the adopted toll structure when compared to the worst-case Tolling Scenario D in the Final EA. With the adopted toll structure, the traffic volume would be reduced by 124 vehicles per hour at the George Washington Bridge/Cross Bronx Expressway. With the adopted toll structure, the additional vehicles per hour on the FDR Drive between 10th Street and the Brooklyn Bridge would potentially be lower than all tolling scenarios evaluated in the Final EA. There would still be an adverse effect at both of those locations.



The mitigation presented in the Final EA would remain effective for each of these locations.

No adverse effects would occur at the other four highway segments with the adopted toll structure.

**Table 4B.1 - Effects on Highway Segments in Final EA and Adopted Toll Structure**

HIGHWAY SEGMENTS FOR ANALYSIS	FINAL EA: POTENTIAL ADVERSE EFFECTS*	ADOPTED TOLL STRUCTURE		
		FURTHER EVALUATION CONDUCTED	POTENTIAL ADVERSE EFFECTS	INTENSITY OF EFFECT
Lincoln Tunnel/NJ Route 495	No	No	No	
Holland Tunnel/I-78/NJ Route 138	No	No	No	
Westbound Long Island Expwy (I-495) near Queens-Midtown Tunnel	Yes - Midday	✓	Yes - AM	Delay of 4 minutes in the AM, comparable to the 4 minutes of delay in the midday in the Final EA; volume increase of 8.5% in the AM is less than the 15% in the midday in the Final EA
Hugh L. Carey Tunnel – Gowanus Expressway	No	✓	No	
Approaches to westbound George Washington Bridge on I-95	Yes - Midday	Qualitative	Yes - Midday	Incremental volume for the adopted toll structure (702 vehicles per hour [vph]) is lower than in the Final EA (826 vph)
Verrazzano-Narrows Bridge/Staten Island Expwy	No	No	No	
Northbound and southbound FDR Drive between E. 10th Street and Brooklyn Bridge	Yes - PM	Qualitative	Yes - PM	Incremental volume for the adopted toll structure (413 vph) is at the lower end of the range predicted in the Final EA across the seven tolling scenarios studied (404 vph – 666 vph)
Bayonne Bridge	No	✓	No	
Robert F. Kennedy Bridge	No	✓	No	
I-95 Eastern Spur	No	✓	No	

\* See Table 4B-27 in the Final EA, page 4B-79.

✓ Quantified analysis completed at this location.

## Local Intersections

In general, the Project would reduce traffic volumes and improve traffic flow. Because some traffic patterns would differ with variations in the toll structure, particularly the toll credits, redistribution of traffic at local intersections was analyzed. Based on the methodology for evaluation of local intersections, 14 of the 102 intersections had higher incremental volumes with the adopted toll structure than identified in the Final EA. Those 14 intersections were located in nine study areas. Thus, those nine study areas, with a total of 71 intersections, were reevaluated. In the nine study areas, further analysis demonstrated that only one of these intersections would have a potential adverse effect under the adopted toll structure, where the worst-case condition evaluated in the Final EA under Tolling Scenario D had four locations with potential adverse effects. The only location in the adopted toll structure that would exceed the impact criterion used for the analysis is at East 125th Street and Second Avenue in the Robert F. Kennedy Bridge Manhattan study

area during the PM peak hour, with a delay of 20.4 seconds. At this location, the Final EA identified adverse effects during both the AM and PM peak periods, with a delay of up to 52.2 seconds. The mitigation commitment described in the Final EA would remain effective at this location under the adopted toll structure.

In addition, the Final EA, using the worst-case condition of Tolling Scenario D, also identified adverse effects at three additional intersections that would no longer occur under the adopted toll structure.

**Table 4B.2** compares the results predicted in the Final EA for local intersections to the results for the adopted toll structure. More information, including traffic volumes and detailed level-of-service analysis results, is provided in an appendix. Detailed analysis results are presented in **Appendix 4B**.

**Table 4B.3** presents information from the Final EA Table ES-5 summarizing the conclusions related to traffic effects on highways and at local intersections, now modified to include the adopted toll structure.

Table 4B.2 - Effects on Local Intersections Final EA and Adopted Toll Structure

FINAL EA STUDY AREAS	FINAL EA		ADOPTED TOLL STRUCTURE						
	Potential Adverse Effects	Number of Intersections with Adverse Effect	ANALYSIS BASED ON SCREENING THRESHOLD**				Potential Adverse Effects	Number of Intersections with Adverse Effect	Intensity of Potential Effects
			AM	Midday	PM	Late Night			
Bklyn Bridge/Manhattan Br–Downtown Brooklyn	No		✓			✓	No		
Hugh L. Carey Tunnel and Holland Tunnel–Lower Manhattan, Brooklyn Bridge, and Manhattan Bridge (impacts at one intersection)	Midday	1		☒		✓	No		
Hugh L. Carey Tunnel–Red Hook, Brooklyn	No		✓	✓		✓	No		
Holland Tunnel–Jersey City, NJ	No						No		
Lincoln Tunnel–Manhattan	No						No		
Ed Koch Queensboro Bridge–East Side at 60th St–Manhattan	No					✓	No		
West Side at 60th St–Manhattan	No						No		
Queens-Midtown Tunnel/Ed Koch Queensboro Bridge–Long Island City–Queens	No		✓			✓	No		
Queens-Midtown Tunnel–Murray Hill–Manhattan (impacts at two intersections)	Yes: Midday, Late Night	2 total: 1 Midday, 1 Late Night		☒		☒	No		
RFK Bridge–Manhattan	Yes: AM, PM	1 total (both AM and PM)	☒		☒	✓	Yes: PM	1	PM intersection delay increase of 20.4 seconds with the adopted toll structure, less than the 52.2-second delay increase predicted in the Final EA
RFK Bridge–Queens	No						No		
RFK Bridge–Bronx	No						No		
West Side Highway / Route 9A at West 24th St–Manhattan	No						No		
Lower East Side–Manhattan	No		✓	✓	✓	✓	No		
Little Dominican Republic–Manhattan	No		✓	✓	✓	✓	No		

\* See Final EA Section 4B.6.3, “Environmental Consequences,” and Table 4B-30 on page 4B-95.

\*\* Intersection study areas screening thresholds for re-analysis:

- ✓ Study area / time period where the adopted toll structure has a higher traffic increment than the Final EA scenario analyzed
- ☒ Study area / time period where the Final EA identified potential adverse effect

## FINDINGS

The analysis conducted for the reevaluation considered the effects of the adopted toll structure on traffic conditions on highways and at local intersections using the same methodology as used for the Final EA. With the adopted toll structure, potential adverse effects would occur on the same three highway segments as identified in the Final EA, but the forecasted traffic volumes at those locations under the adopted toll structure would be lower than the volumes evaluated in the Final EA. The same mitigation would be applied. No new mitigation is required. At local intersections, one intersection would have a potential adverse effect under the adopted toll structure, in comparison to four intersections identified in the Final EA. The effect at the location with the adverse effect would be lessened with the adopted toll structure and the proposed mitigation would remain effective. Therefore, the reevaluation demonstrates that the Final EA remains valid. With the adopted toll structure, the effects are within the range evaluated in the Final EA and no new adverse effects would occur. No additional mitigation is needed. The Project Sponsors remain committed to the mitigation described in the Final EA at the locations where potential adverse effects are predicted for the adopted toll structure.

Table 4B.3 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
4B – Transportation: Highways and Local Intersections	Traffic – Highway Segments	The introduction of the CBD Tolling Program may produce increased congestion on highway segments approaching on circumferential roadways used to avoid Manhattan CBD tolls, resulting in increased delays and queues in midday and PM peak hours on certain segments in some tolling scenarios: <ul style="list-style-type: none"><li>Westbound Long Island Expressway (I-495) near the Queens-Midtown Tunnel (midday)</li><li>Approaches to westbound George Washington Bridge on I-95 (midday)</li><li>Southbound and northbound FDR Drive between East 10th Street and Brooklyn Bridge (PM)</li><li>Other locations will see an associated decrease in congestion particularly on routes approaching the Manhattan CBD</li></ul>	10 highway segments (AM)	Highway segments with increased delays and queues in peak hours that would result in adverse effects	0 out of 10 highway corridors in the analyzed tolling scenario (Tolling Scenario D)							Yes	<b>Mitigation needed.</b> The Project Sponsors will implement a monitoring plan prior to implementation with post-implementation data collected approximately three months after the start of tolling operations and including thresholds for effects; if the thresholds are reached or crossed, the Project Sponsors will implement TDM measures, such as ramp metering, motorist information, signage at all identified highway locations with adverse effects upon implementation of the Project. NYSDOT owns and maintains the relevant segments of the Long Island Expressway and I-95. The relevant segment of the FDR Drive is owned by NYSDOT south of Montgomery Street and NYCDOT north of Montgomery Street. Implementation of TDM measures will be coordinated between the highway owners and the owners of any assets relevant to implementing the TDM.  Post-implementation of TDM measures, the Project Sponsors will monitor effects and, if needed, TBTA will modify the toll rates, crossing credits, exemptions, and/or discounts to reduce adverse effects.	AM - 1 out of 10 highway corridors (Westbound Long Island Expressway (I-495) near the Queens-Midtown Tunnel); for some drivers, these increases will be offset by travel time savings within the CBD.	Yes	<b>No additional mitigation needed.</b> The Project Sponsors will implement the mitigation commitments of the Final EA.
			10 highway segments (midday)		2 out of 10 highway corridors in the analyzed tolling scenario (Tolling Scenario D), as well as Tolling Scenarios E and F									Midday - 1 out of 10 highway corridors (approaches to westbound George Washington Bridge on I-95); for some drivers, these increases will be offset by travel time savings within the CBD.		
			10 highway segments (PM)		1 out of 10 highway corridors in the analyzed tolling scenario (Tolling Scenario D), as well as Tolling Scenarios E and F									PM - 1 out of 10 highway corridors (southbound and northbound FDR Drive between East 10th Street and Brooklyn Bridge); for some drivers, these increases will be offset by travel time savings within the CBD.		
		Intersections	Shifts in traffic patterns, with increases in traffic at some locations and decreases at other locations, would change conditions at some local intersections within and near the Manhattan CBD. Of the 102 intersections analyzed, most intersections would see reductions in delay.  Potential adverse effects on four local intersections in Manhattan: <ul style="list-style-type: none"><li>Trinity Place and Edgar Street (midday)</li><li>East 36th Street and Second Avenue (midday)</li><li>East 37th Street and Third Avenue (midday)</li><li>East 125th Street and Second Avenue (AM, PM)</li></ul>	4 locations	Number of locations with potential adverse effects that will be addressed with signal timing adjustments	4 in the analyzed tolling scenario (Tolling Scenario D), as well as Tolling Scenarios E and F							Yes	Mitigation needed. NYCDOT will monitor those intersections where potential adverse effects were identified and implement appropriate signal timing adjustments to mitigate the effect, per NYCDOT’s normal practice.  <b>Enhancement</b> Refer to the overall enhancement on monitoring at the end of this table.	Potential adverse effects at <b>1 location:</b> East 125th Street at Second Avenue (PM)	Yes

**OVERALL PROJECT ENHANCEMENT.** The Project Sponsors commit to ongoing monitoring and reporting of potential effects of the Project, including for example, traffic entering the CBD, vehicle-miles traveled in the CBD; transit ridership from providers across the region; bus speeds within the CBD; air quality and emissions trends; parking; and Project revenue. Data will be collected in advance and after implementation of the Project. A formal report on the effects of the Project will be issued one year after implementation and then every two years. In addition, a reporting website will make data, analysis, and visualizations available in open data format to the greatest extent practicable. Updates will be provided on at least a bi-annual basis as data becomes available and analysis is completed. This data will also be used to support an adaptive management approach to monitoring the efficacy of mitigation, and adjustments as warranted.

## 4C Transportation – Transit

Subchapter 4C of the Final EA presented the assessment of the CBD Tolling Alternative on transit operations throughout the 28-county regional study area, including capacity of transit services (line-haul capacity) and effects on operations within individual transit stations. This section evaluates the effects of the adopted toll structure on the transit lines and stations. More detailed results of the analysis conducted for the reevaluation are provided in **Appendix 4C**.

### METHODOLOGY

#### Final EA Methodology

As described in detail in the Final EA Section 4C.2, “Methodology and Assumptions,” the Final EA analysis of transit used screening assessments followed by qualitative and/or quantified analyses conducted in coordination with the operating agency for the potentially affected transit service, consistent with evaluation procedures recommended in New York City’s *City Environmental Quality Review (CEQR) Technical Manual*.

NYC’s CEQR guidelines were used for analysis of New Jersey transit services (NJ TRANSIT, PATH, and suburban buses that enter the Manhattan CBD) because NJ TRANSIT and PANYNJ do not have alternative guidelines. In coordination with Metro-North Railroad and Long Island Rail Road, New York City Environmental Quality Review (CEQR) methodologies were also used to assess commuter rail lines and stations.

#### *Line-Haul*

##### Subways and Commuter Rail

1. Identified transit lines with more than 200 new peak-hour passengers in a single direction at maximum load point for the tolling scenario with the highest incremental transit ridership increase. The scenario with the highest incremental transit ridership increase for each subway and commuter rail line was used for the next steps in the analysis.
2. For transit lines above the 200-passenger screening threshold, evaluated the number of new passengers per train and car in the peak-hour.
3. Potential adverse effects were identified for any transit services where the Project increment would add more than 5 passengers per car and the service would operate above its guideline capacity (no subway or commuter rail lines exceeded this threshold in the Final EA, and there was no potential adverse effect on subways or commuter rail line-haul capacity).

##### Buses

1. Identified bus routes with more than 50 new passengers per hour, per direction, at maximum load point for the tolling scenario with the highest incremental transit ridership increase. The scenario

with the highest incremental transit ridership increase for each bus route cordon grouping was used for the next steps in the analysis.

2. For bus routes above the 50-passenger threshold, evaluated the number of incremental passengers per trip and calculated the volume-to-capacity (v/c) ratio that would result with the new passengers.
3. Potential adverse effects were identified for bus routes where the v/c ratio would be greater than 1.00, indicating that demand would be greater than capacity (no bus routes exceeded this threshold in the Final EA, and there were no potential adverse effects on bus line-haul capacity).

### ***Stations***

1. Identified transit stations with more than 200 new passengers in the peak hour for the tolling scenario with the highest incremental transit ridership increase (excluding cross-platform transfers between trains). Because Tolling Scenario E projected the highest transit system ridership, it was selected as the tolling scenario for detailed analysis of stations requiring further analysis (except at one location in Newark, New Jersey—for both PATH and NJ TRANSIT—where Tolling Scenario C was selected for its greater station ridership increase).
2. For transit stations above the 200-passenger screening threshold, conducted qualitative analysis of station, or quantified analysis of effect on station elements (stairs, escalators, passageways, turnstiles, and fare arrays), in coordination with the station operator.

## **Reevaluation Methodology**

### ***Line-Haul***

1. Identified incremental passenger increases from the adopted toll structure at maximum load points for subway, commuter rail, and bus lines.
2. Identified lines with higher increment than Final EA tolling scenario analyzed at those locations.
3. Using the same methodology as the Final EA, conducted analysis for lines where both:
  - Increments met CEQR screening threshold for analysis (200 new peak-hour passengers for subways and commuter rail; 50 new passengers per hour, per direction, at maximum load point for buses)
  - Increments were higher than the Final EA

If the line met the screening threshold for increased passengers, but the increase was less than that where no adverse effects were found after detailed analysis in the Final EA, then no further detailed analysis was necessary.

### ***Stations***

1. Identified incremental passenger increases from the adopted toll structure at transit stations.
2. Using the same methodology as in the Final EA, identified transit stations with more than 200 new passengers in the peak hour due to the adopted toll structure (excluding cross-platform transfers between trains).

3. Using the same methodology as the Final EA, conducted analysis for stations where both:
  - o Increments met CEQR screening threshold for analysis
  - o Increments were higher than the Final EA

If the station met the screening threshold for increased passengers, but the increase was less than that where no adverse effects were found after detailed analysis in the Final EA, then no further detailed analysis was necessary.

## ANALYSIS AND RESULTS

The analysis of the adopted toll structure concludes that the total change in AM peak-period transit boardings systemwide is within the range of results for tolling scenarios evaluated in the Final EA/FONSI as shown in **Table 4C.5**.<sup>3</sup> The BPM results for the adopted toll structure show an increase of 0.3 percent over Tolling Scenario C (the worst-case scenario evaluated) for the Roosevelt Island Tramway and otherwise the results are comparable to those assessed in the Final EA. At a more refined level, as shown in modified **Table 4C.1** below, the adopted toll structure would result in slightly lower total subway, bus, and commuter rail boardings in the AM peak period than analyzed in the Final EA Tolling Scenario E (with 6,431,493 in the adopted toll structure compared with 6,454,147 with Tolling Scenario E, the scenario with highest overall transit boardings). Passenger boardings in the AM peak period on Metro-North Railroad systemwide with the adopted toll structure would exceed boardings with Tolling Scenario E slightly, by 52 boardings systemwide. However, Tolling Scenarios D and F had 502 and 672 boardings on Metro-North Railroad, respectively, more than the adopted toll structure. For total transit boardings, the Final EA reported more boardings in Tolling Scenarios C, D, E, F, and G than the adopted toll structure. **Table 4C.1** below provides a comparison of total transit ridership by mode in the AM peak four-hour period for the Final EA tolling scenarios and the adopted toll structure.

### Line-Haul

Considering the effect of the adopted toll structure on individual subway and commuter rail lines, the adopted toll structure would result in incremental passenger volumes above the screening threshold on one commuter rail line: the Metro-North Railroad New Haven Line (see **Table 4C.2**). The tolling scenarios evaluated in the Final EA, Tolling Scenarios A through G, had 1 to 10 lines that exceeded this screening threshold. Tolling Scenario E was the representative scenario used for this analysis, with the highest ridership and 10 lines exceeding the threshold. On the Metro-North Railroad New Haven Line, the adopted toll structure would result in 437 additional peak-hour passengers (over the No Action), in comparison to 212 new passengers evaluated in the Final EA (Tolling Scenario E). Overall, the increase on the New Haven Line due to the adopted toll structure would be equivalent to 2.6 new passengers per train car, which is

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<sup>3</sup> The use of a transit system (buses, rail, subways, etc.) or its ridership is typically defined by passengers boarding onto its transit vehicles. Accordingly, the number of passengers boarding a system is used by transportation models to measure or project its ridership. In certain instances, such as measuring line-haul capacity (i.e., capacity of a system to handle passenger demand at a certain point on the system), passengers on the system (i.e., ridership) is considered instead.



lower than the CEQR threshold of five additional passengers per train car. Therefore, the adopted toll structure would not result in adverse effects on line-haul capacity on the New Haven Line.

The adopted toll structure results are within the range of the scenarios evaluated in the Final EA/FONSI for bus routes, except for one route where its ridership would exceed ridership with Tolling Scenario D by 0.5 percent (**Table 4C.5**). For bus routes, the 13 New Jersey/West of Hudson bus lines (via Holland Tunnel) would see an overall 1.9 percent increase in passengers at the maximum load point with the adopted toll structure, compared to a range of -1.4 to 1.4 percent change in passengers for the Final EA tolling scenarios. The maximum increase per-direction at the maximum load point on a single line was 8 new riders, which is lower than the CEQR threshold of 50 new riders. Therefore, the adopted toll structure would not result in adverse effects on line-haul capacity on any West of Hudson bus lines.

The Roosevelt Island Tramway would have three more riders under the adopted toll structure than with Tolling Scenario E. Although the adopted toll structure would result in a 2.9 percent increase in ridership on the tramway over the No Action condition, the ridership increment is minimal and would not result in adverse effects on the line-haul capacity of the tramway.

**Table 4C.1 - Modified Final EA Table 4C-6. Transit Ridership: No Action Alternative and CBD Tolling Alternative (2023 AM Peak Period) – with the Adopted Toll Structure Added**

MODE	NO ACTION ALTERNATIVE	TOLLING SCENARIO A	TOLLING SCENARIO B	TOLLING SCENARIO C	TOLLING SCENARIO D	TOLLING SCENARIO E	TOLLING SCENARIO F	TOLLING SCENARIO G	ADOPTED TOLL STRUCTURE
<b>Subway</b>	<b>3,138,960</b>	<b>3,184,961</b>	<b>3,187,374</b>	<b>3,192,428</b>	<b>3,199,370</b>	<b>3,203,052</b>	<b>3,199,783</b>	<b>3,197,389</b>	<b>3,190,362</b>
New York City Transit	3,005,224	3,050,101	3,052,683	3,056,840	3,063,552	3,066,614	3,063,577	3,061,455	3,054,862
Port Authority Trans-Hudson (PATH)	133,736	134,860	134,691	135,588	135,818	136,438	136,206	135,934	135,500
<b>Commuter and Intercity Rail</b>	<b>454,520</b>	<b>456,755</b>	<b>457,863</b>	<b>459,632</b>	<b>461,634</b>	<b>463,108</b>	<b>462,013</b>	<b>458,867</b>	<b>459,622</b>
Long Island Rail Road	142,651	143,452	143,989	144,244	144,733	145,544	144,560	144,084	144,103
Metro-North Railroad	152,203	153,128	153,437	154,108	154,850	154,296	155,020	153,491	154,348
NJ TRANSIT	159,666	160,175	160,437	161,280	162,051	163,268	162,433	161,292	161,171
<b>Buses</b>	<b>2,689,564</b>	<b>2,718,960</b>	<b>2,717,506</b>	<b>2,724,787</b>	<b>2,724,456</b>	<b>2,727,512</b>	<b>2,726,657</b>	<b>2,718,457</b>	<b>2,721,174</b>
MTA buses	2,037,319	2,063,136	2,062,997	2,068,001	2,067,753	2,069,107	2,068,898	2,062,926	2,064,522
NJ TRANSIT	471,109	474,344	473,456	474,079	474,279	476,321	475,663	474,260	475,149
Other	181,136	181,480	181,053	182,707	182,424	182,084	182,096	181,271	181,503
<b>Other Transit</b>	<b>58,635</b>	<b>60,073</b>	<b>60,225</b>	<b>60,467</b>	<b>60,474</b>	<b>60,475</b>	<b>60,712</b>	<b>60,246</b>	<b>60,335</b>
Ferries	57,548	58,966	59,120	59,358	59,363	59,360	59,598	59,140	59,216
Tramway	1,087	1,107	1,105	1,109	1,111	1,115	1,114	1,106	1,118
<b>TOTAL</b>	<b>6,341,679</b>	<b>6,420,749</b>	<b>6,422,968</b>	<b>6,437,314</b>	<b>6,445,934</b>	<b>6,454,147</b>	<b>6,449,165</b>	<b>6,434,959</b>	<b>6,431,493</b>

Source: WSP, Best Practice Model 2023, 2021 and the New York Metropolitan Transportation Council (NYMTC) Hub Bound Travel Data Report 2019.

Note: Data total over a 4-hour period, defined as total boardings, which include transfers. (Because this ridership estimate includes transfers, the ridership reported is greater than MTA NYCT MetroCard data that is widely available.) The BPM includes MTA buses, NJ TRANSIT buses, smaller regional bus carriers, and private carriers. (Other smaller carriers and private carriers are included under "Other Buses.") Tramway volumes were calculated using an incremental change factor derived from Queens/Roosevelt Island sector change per each tolling scenario.

**Table 4C.2 – Transit Lines Triggering Detailed Line-Haul Analysis and Average Incremental Increase Across Tolling Scenarios (AM Peak Hour) – with Adopted Toll Structure Added**

TOLLING SCENARIO	PORT AUTHORITY TRANS-HUDSON (PATH)		NEW YORK CITY TRANSIT SUBWAY		COMMUTER RAIL		BUS		TOTAL
	Number of Lines Exceeding Threshold	Average Incremental Ridership Increase	Number of Lines Exceeding Threshold	Average Incremental Ridership Increase	Number of Lines Exceeding Threshold	Average incremental Ridership Increase	Number of Lines Exceeding Threshold	Average Incremental Ridership Increase	Number of Lines Exceeding Threshold
A	0	—	1	290	0	—	0	—	1
B	0	—	1	231	2	296	0	—	3
C	0	—	3	244	1	376	0	—	4
D	0	—	5	248	3	315	0	—	8
E	1	234	5	265	4	282	0	—	10
F	0	—	7	249	3	326	0	—	10
G	1	242	1	235	1	232	0	—	3
Adopted Toll Structure	0	—	0	—	1	437	0	—	1

Source: WSP, Best Practice Model

Note: Average incremental ridership increase is the average increase in passengers among lines with hourly passenger increments over the 200 passenger threshold. Following CEQR guidance, subway and commuter rail lines with a projected net hourly increase of 200 or more passengers require detailed line-haul analysis. Bus lines with a projected net hourly increase of 50 or more passengers also require detailed line-haul analysis.

## Stations

The passenger volumes within transit stations predicted for the adopted toll structure were lower than the volumes for the worst-case tolling scenarios reported in the Final EA/FONSI except at three stations, Grand Central Terminal, Court Square Station, and Main Street-Flushing station, discussed below in more detail.

In the Final EA, the initial screening evaluation conducted for the Final EA concluded that 26 commuter rail and subway stations were projected to have passenger increases of more than the screening threshold of 200 new peak-hour passengers across all tolling scenarios (see Final EA Subchapter 4C, Section 4C.4.2.5, page 4C-46). Tolling Scenario E had the highest number of stations exceeding the 200-passenger threshold, with 23 stations, and Tolling Scenarios B and G had the least, both with 18 stations exceeding the screening threshold (see Final EA Table 4C-10 and Table 4C.3). During preparation of the Final EA, the Project Sponsors then consulted with the station operators, which evaluated the potential increases in the context of recent or planned station improvements, station size, and other factors. As a result of that consultation, four station complexes were evaluated qualitatively in the Final EA and found to have no adverse effects due to the Project:

- Grand Central Terminal (subway and commuter rail station)
- Port Authority Bus Terminal (bus and subway station)
- Penn Station New York (commuter rail and subway station)
- Fulton Transit Center (subway station)

The remaining stations were evaluated quantitatively for the Final EA, with analysis of the CBD Tolling Alternative's effects on station elements (stairs and escalators, passageways, and turnstiles / fare arrays).

In the reevaluation for the adopted toll structure, the initial screening evaluation concluded that with the adopted toll structure, three stations would have passenger increases of more than the screening threshold—i.e., more than 200 new peak-hour passengers and higher than Final EA Tolling Scenario E: Grand Central Terminal, Court Square Station, and Main Street–Flushing Station (see **Table 4C.3**). These locations were then evaluated using the same approach as in the Final EA: qualitative analysis for Grand Central Terminal (for which the Final EA identified no adverse effect) and quantitative analysis for Court Square and Main Street–Flushing Stations (for which the Final EA identified adverse effects). More detailed results of the analysis conducted for the reevaluation for the adopted toll structure are provided in **Appendix 4C**. The results of this analysis were as follows (see also **Tables 4C.3 and 4C.4**):

- **Grand Central Terminal (Metro-North Railroad, No. 4, 5, 6, 7 and S subway lines):**
  - The adopted toll structure had a 3 percent (18 more passengers) higher passenger volume than Final EA Tolling Scenario E.
  - Considering planned and under-construction capacity improvements, and the modest change as compared to the Final EA, this increase would result in the same conclusion of no new adverse effects.
- **Flushing-Main Street station (No. 7 subway line):**
  - The adopted toll structure had a 10 percent (27 more passengers) higher passenger volume than Final EA Tolling Scenario E.
  - The Final EA identified a potential adverse effect at street escalator 456. The Final EA's proposed mitigation of increasing the escalator speed would mitigate the adverse effect. The adopted toll structure would also have a potential adverse effect at this station; this would also be mitigated by the increase in escalator speed. There are no new adverse effects.
- **Court Square station (No. 7, E/M, and G subway lines):**
  - The adopted toll structure had a 2 percent (5 more passengers) higher passenger volume than Final EA Tolling Scenario E.
  - The Final EA identified a potential adverse effect at platform stair Flushing P2/P4. The Final EA's proposed mitigation – constructing a new stair from the northern end of the No. 7 platform to the street – would mitigate the potential adverse effect. With the adopted toll structure, there would also be an adverse effect and this would be mitigated by the new stair. There are no new adverse effects.

At other stations where the Final EA predicted adverse effects (using Tolling Scenario E), the adopted toll structure would result in lower incremental volumes than evaluated in the Final EA in Tolling Scenario E—the Hoboken PATH Station (Tolling Scenario E, 316 in AM peak hour; adopted toll structure, 141 in AM peak hour), Union Square Station (Tolling Scenario E, 585 in AM peak hour; adopted toll structure, 450 in AM

peak hour), and 42nd Street–Times Square Station (Tolling Scenario E, 790 in AM peak hour; adopted toll structure, 474 in AM peak hour).

At Hoboken Terminal, the reevaluation analysis indicated that the adopted toll structure would result in volumes that are 45 to 50 percent of the Final EA Tolling Scenario E increments. This would result in a stair volume of 141 and 152 incremental passengers in the AM and PM peak hours, respectively, and no adverse effect would occur. The mitigation measures identified in the Final EA and FONSI will be implemented as an enhancement (as indicated in **Table 4C.5** below).

At the Union Square Station, the adopted toll structure would have 316 to 367 fewer incremental passengers in the AM and PM peak hours, respectively, than Tolling Scenario E. At the Times Square Station, the adopted toll structure would have 135 to 145 fewer passengers in the AM and PM peak hours, respectively, compared with Tolling Scenario E. With both these stations having lower increments under the adopted toll structure than Tolling Scenario E analyzed in the Final EA, adverse effects would be less than what was expected under Tolling Scenario E. These adverse effects would be adequately addressed by the mitigation measures described in the Final EA and FONSI. No additional mitigation would be required.

**Table 4C.5** presents information from the Final EA Table ES-5 summarizing the conclusions related to transit effects, now modified to include the adopted toll structure.

## FINDINGS

The change in transit ridership with the adopted toll structure would fall within the range predicted for the tolling scenarios evaluated in the Final EA. Final EA Tolling Scenario E had the highest predicted increase in transit ridership of all the tolling scenarios evaluated. Ridership during the AM peak period with the adopted toll structure would exceed that of Tolling Scenario E slightly on the Metro-North New Haven Line; however, it would be lower than with Tolling Scenarios D and F on this route.

For the 13 New Jersey/West of Hudson bus lines (via Holland Tunnel) collectively, the adopted toll structure would result in an increase in passengers of 1.9 percent at the maximum load point during the AM peak period. The range for these routes in the Final EA/FONSI was -1.4 to 1.4 percent. The maximum predicted increase per-direction at the maximum load point on a single line for the adopted toll structure is 8 new riders, which is lower than the CEQR threshold of 50 new riders on a single line. Therefore, there is no adverse effect.

For the Roosevelt Island Tramway, the adopted toll structure would result in a 2.9 percent increase in passengers during the peak period over the No Action Alternative. However, the ridership increment is just three more passengers than Tolling Scenario E, which had no adverse effect. This is a small variation from what was evaluated in the Final EA, so there is no adverse effect.

The increase in passengers at stations with the adopted toll structure would be lower than or within the range evaluated in the Final EA/FONSI except at three stations. The additional volume at these stations would exceed the volumes with Tolling Scenario E by 5 to 27 passengers. This is a small variation from what

was evaluated in the Final EA/FONSI and would not result in any new adverse effects. Passenger volumes at Hoboken Terminal with the adopted toll structure would drop below the screening threshold for adverse effect, so there is no longer an adverse effect at that location with the adopted toll structure. The remaining adverse effects found in the Final EA/FONSI remain valid. The Project Sponsors remain committed to the mitigation described in the Final EA and FONSI.

**Table 4C.3 - Modified Final EA Table 4C-26 & Table 4C-27. Transit Stations with More than 200 Projected New Passengers in the AM and PM Peak Hour (2023), Final EA Tolling Scenario E or C – with the Adopted Toll Structure Added**

STATION NAME	OPERATOR	LINE	FINAL EA – TOLLING SCENARIO E OR C		ADOPTED TOLL STRUCTURE	
			AM Peak Net Ons/Offs	PM Peak Net Ons/Offs	AM Peak Net Ons/Offs	PM Peak Net Ons/Offs
New York-Penn Station	LIRR/NJ TRANSIT	—	1,380	1,380	680	680
New York-Grand Central Terminal	Metro-North	—	619	619	637	637
Hoboken Terminal	NJ TRANSIT	—	501	501	122	122
Hoboken Terminal (PATH)	PANYNJ	—	316	340	141	141
World Trade Center Station	PANYNJ	—	264	285	157	210
Times Sq-42 St/42 St-Port Authority Bus Terminal	NYCT	Nos. 1, 2, 3, 7, and A, C, E, N, Q, R, S, W	790	851	474	484
Grand Central-42 St	NYCT	Nos. 4, 5, 6, 7, and S	761	820	475	512
14 St-Union Square	NYCT	Nos. 4, 5, 6, and L, N, Q, R, W	585	630	450	485
Fulton St	NYCT	Nos. 2, 3, 4, 5, and A, C, J, Z	495	533	333	358
Lexington Av/59 St	NYCT	Nos. 4, 5, 6, and N, R, W	455	490	373	401
Lexington Av/53 St and 51 St	NYCT	No. 6, and E, M	395	425	285	307
42 St-Bryant Park-5 Av	NYCT	No. 7, and B, D, F, M	342	369	218	235
Broadway-Lafayette St and Bleecker St	NYCT	No. 6, and B, D, F, M	341	368	246	265
Court Square	NYCT	No. 7, and E, G, M	332	354	337	363
59 St-Columbus Circle	NYCT	No. 1, and A, B, C, D	326	351	222	239
Atlantic Av-Barclays Center	NYCT	Nos. 2, 3, 4, 5, and B, Q, D, N, R	313	338	280	301
34 St-Herald Sq	NYCT	B, D, F, M, N, Q, R, W	319	344	205	221
14 St (Sixth Av/Seventh Av)	NYCT	Nos. 1, 2, 3, and F, M, L	268	288	234	252
Flushing-Main St	NYCT	7	261	281	288	310
Broadway Junction	NYCT	Nos. 1, 2, 3, and F, M, L	245	264	222	239
Canal St	NYCT	No. 6, and N, Q, R, W, J	230	247	170	183
168 St-Washington Heights	NYCT	No. 1, and A, C	204	219	162	174

Source: WSP, Best Practice Model.

Note: All stations with free connections have aggregated volumes. Peak-hour incremental change was calculated as an average 28 percent peak-hour to peak-period ratio in the PM for NYCT subways, PATH trains, and buses; 43 percent peak-hour to peak-period ratio for Metro-North and NJ TRANSIT; and 41 percent peak-hour to peak-period ratio for LIRR. Net ons/offers include subway-to-bus, subway-to-subway, and bus-to-subway transfers and is not a direct calculation of Tolling Scenario E (the scenario with the highest overall ridership) minus No Action Alternative incremental trips. Tolling Scenario C was used for analysis at Hoboken Terminal because it had higher ridership than Tolling Scenario E at Hoboken Terminal.

**Table 4C.4 - Modified Final EA Table 4C-34. NYCT Station Elements Where Adverse Effects and Accompanying Project Improvements Have Been Identified (CBD Tolling Alternative, 2023 AM Peak Hour) – with Adopted Toll Structure and Mitigation Added**

STATION	ELEMENT	NO ACTION ALTERNATIVE			FINAL EA (SCENARIO E)			ADOPTED TOLL STRUCTURE			WITH MITIGATION				IDENTIFIED MITIGATION
		AM Peak-Hour Volume	V/C Ratio	Level of Service	AM Peak-Hour Volume	V/C Ratio	Level of Service	AM Peak-Hour Volume	V/C Ratio	Level of Service	FINAL EA (SCENARIO E)		ADOPTED TOLL STRUCTURE		
											V/C Ratio	Level of Service	V/C Ratio	Level of Service	
Flushing – Main Street	Escalator E456: Street escalator at north side of Roosevelt Avenue between Main Street and Union Street	2,984	1.18	D	3,040	1.21	D	3,045	1.21	D	1.08	D	1.08	D	Increase escalator speed to 120 feet per minute.
Court Square	Stair P2/P4: Stair between paid zone and Manhattan-bound No. 7 train	3,825	1.84	F	3,955	1.90	F	3,947	1.90	F	1.56	E	1.56	E	Construct new stair from the northern end of No. 7 platform to the street.

Note: Highlighted columns show with-mitigation service levels, these were not included in Table 4C-35 in the Final EA.



Table 4C.5 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
4C – Transportation: Transit	Transit Systems	The Project would generate a dedicated revenue source for investment in the transit system. Transit ridership would increase by 1 to 2 percent systemwide for travel to and from the Manhattan CBD, because some people would shift to transit rather than driving. Increases in transit ridership would not result in adverse effects on line-haul capacity on any transit routes.	New York City Transit	% Increase or decrease in total AM peak period boardings systemwide	1.5%	1.6%	1.7%	1.9%	2.0%	1.9%	1.8%	No	No mitigation needed. No adverse effects	1.7%	No	No mitigation needed. No adverse effects
			PATH		0.8%	0.7%	1.4%	1.6%	2.0%	1.8%	1.6%			1.3%		
			Long Island Rail Road		0.6%	0.9%	1.1%	1.5%	2.0%	1.3%	1.0%			1.0%		
			Metro-North Railroad		0.6%	0.8%	1.3%	1.7%	1.4%	1.9%	0.8%			1.4%		
			NJ TRANSIT commuter rail		0.3%	0.5%	1.0%	1.5%	2.3%	1.7%	1.0%			0.9%		
			MTA/NYCT Buses		1.3%	1.3%	1.5%	1.5%	1.6%	1.6%	1.2%			1.3%		
			NJ TRANSIT Bus		0.7%	0.5%	0.6%	0.7%	1.1%	1.0%	0.7%			0.9%		
			Other buses (suburban and private operators)		0.2%	0.0%	0.9%	0.7%	0.5%	0.5%	0.1%			0.2%		
			Ferries (Staten Island Ferry, NYC Ferry, NY Waterway, Seastreak)		2.5%	2.7%	3.1%	3.2%	3.1%	3.6%	2.7%			2.9%		
			Roosevelt Island Tram		1.8%	1.7%	2.0%	2.2%	2.6%	2.5%	1.7%			2.9%		
	Bus System Effects	Decreases in traffic volumes within the Manhattan CBD and near the 60th Street boundary of the Manhattan CBD would reduce the roadway congestion that adversely affects bus operations, facilitating more reliable, faster bus trips.	Manhattan local buses	% Increase or decrease at maximum passenger load point	0.5%	0.5%	0.7%	1.1%	1.2%	0.9%	0.7%	No	No mitigation needed. No adverse effects	0.5%	No	No mitigation needed. No adverse effects
			Bronx express buses		-1.6%	2.0%	2.2%	-0.5%	2.0%	1.5%	-2.5%			0.6%		
			Queens local and express buses (via Ed Koch Queensboro Bridge)		2.2%	2.0%	2.3%	2.3%	2.5%	2.8%	2.0%			2.2%		
			Queens express buses (via Queens-Midtown Tunnel)		0.3%	0.2%	0.4%	0.8%	1.1%	0.8%	0.6%			0.5%		
			Brooklyn local and express buses		0.8%	1.0%	0.6%	0.7%	0.7%	0.8%	2.6%			0.5%		
			Staten Island express routes (via Brooklyn)		4.0%	4.5%	4.4%	3.8%	3.9%	3.7%	3.5%			3.9%		
			Staten Island express routes (via NJ)		1.0%	1.9%	2.3%	2.8%	1.8%	1.8%	2.4%			1.3%		
			NJ/West of Hudson buses (via Holland Tunnel)		-1.4%	-0.9%	-0.3%	1.4%	-0.9%	-0.6%	-1.4%			1.9%		
			NJ/West of Hudson buses (via Lincoln Tunnel)		0.4%	0.6%	0.4%	0.6%	1.5%	1.1%	0.6%			0.8%		

Table 4C.5 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
4C – Transportation: Transit (Cont’d)	Transit Elements	<p>Increased ridership would affect passenger flows with the potential for adverse effects at certain vertical circulation elements (i.e., stairs and escalators) in five transit stations:</p> <ul style="list-style-type: none"><li>Hoboken Terminal, Hoboken, NJ PATH station</li><li>Times Sq-42 St/42 St-Port Authority Bus Terminal subway station in the Manhattan CBD (N, Q, R, W, and S; Nos. 1, 2, 3, and 7; and A, C, E lines)</li><li>Flushing-Main St subway station, Queens (No. 7 line)</li><li>14th Street-Union Square subway station in the Manhattan CBD (Nos. 4, 5, and 6; and L, N, Q, R, W lines)</li><li>Court Square subway station, Queens (No. 7 and E, G, M lines)</li></ul>	Hoboken Terminal–PATH station (NJ) Stair 01/02	Net passenger increases at stair in the peak hour vs. No Action Alternative	45	72	122	164	240	205	139	Yes	<b>Mitigation needed for Tolling Scenarios E and F.</b> TBTA will coordinate with NJ TRANSIT and PANYNJ to monitor pedestrian volumes on Stair 01/02 one month prior to commencing tolling operations to establish a baseline, and two months after Project operations begin. If a comparison of Stair 01/02 passenger volumes before and after implementation shows an incremental change that is greater than or equal to 205, then TBTA will coordinate with NJ TRANSIT and PANYNJ to implement improved signage and wayfinding to divert some people from Stair 01/02, and supplemental personnel if needed.	140	No	<b>No mitigation needed.</b> TBTA is maintaining its commitment to implement the mitigation measures identified in the Final EA, including monitoring and improvements, if warranted, as an enhancement.
			42 St-Times Square–subway station (Manhattan) Stair ML6/ML8 connecting mezzanine to uptown 1/2/3 lines subway platform	Net passenger increases at stair in the peak hour vs. No Action Alternative	45	42	48	58	71	58	40	Yes	<b>Mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, TBTA will coordinate with MTA NYCT to remove the center handrail and standardize the riser, so that the stair meets code without the hand rail. The threshold will be set to allow for sufficient time to implement the mitigation so that the adverse effect does not occur.	43	Yes	<b>No additional mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement the mitigation commitments of the Final EA, including monitoring and improvements, if warranted.
			Flushing-Main St subway station (Queens)–Escalator E456 connecting street to mezzanine level	Net passenger increases at stair in the peak hour vs. No Action Alternative	65	51	60	65	56	74	40	Yes	<b>Mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, MTA NYCT will increase the speed from 100 feet per minute (fpm) to 120 fpm.	61	Yes	<b>No additional mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement the mitigation commitments of the Final EA, including monitoring and improvements, if warranted.
			Union Sq subway station (Manhattan)–Escalator E219 connecting the L subway line platform to the Nos. 4/5/6 line mezzanine	Net passenger increases at stair in the peak hour vs. No Action Alternative	14	19	20	23	23	22	14	Yes	<b>Mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, MTA NYCT will increase the escalator speed from 100 fpm to 120 fpm.	18	Yes	<b>No additional mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement the mitigation commitments of the Final EA, including monitoring and improvements, if warranted.
			Court Sq subway station (Queens)–Stair P2/P4 to Manhattan-bound No. 7 line	Net passenger increases at stair in the peak hour vs. No Action Alternative	127	117	133	135	130	152	126	Yes	<b>Mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement a monitoring plan for this location. The plan will identify a baseline, specific timing, and a threshold for additional action. If that threshold is reached, TBTA will coordinate with MTA NYCT to construct a new stair from the northern end of the No. 7 platform to the street. The threshold will be set to allow for sufficient time to implement the mitigation so that the adverse effect does not occur.	122	Yes	<b>No additional mitigation needed.</b> TBTA will coordinate with MTA NYCT to implement the mitigation commitments of the Final EA, including monitoring and improvements, if warranted.

## 4D Transportation – Parking

Subchapter 4D of the Final EA presented the assessment of the CBD Tolling Alternative’s potential effect on parking conditions, including curbside parking (on-street parking) and parking lots and garages (off-street parking) serving transit stations and transit hubs where potential increases in transit ridership could increase the demand for parking. This section reevaluates those effects for the adopted toll structure.

### METHODOLOGY

#### Final EA Methodology

The methodology used to evaluate the Project’s effect on parking conditions is described in the Final EA in Subchapter 4D, Section 4D.2, “Methodology.” As detailed there, the methodology included the following:

1. Used BPM output to identify groupings of transit stations and hubs where the CBD Tolling Alternative (any tolling scenario) would result in more than 50 new vehicles in the peak hour.
2. For groupings of transit stations and hubs from Step 1, calculated the average increase per station within the grouping to identify individual stations where the CBD Tolling Alternative would result in more than 50 new vehicles per hour, since that level of new vehicle trips could be large enough to result in a corresponding increase in demand for parking spaces nearby.
3. For stations and hubs from Step 2, conducted detailed analysis to identify effects (this was not needed for any location).
4. For stations and hubs from Step 3, identified mitigation for any potential adverse effects (this was not needed for any location).

#### Reevaluation Methodology

The same methodology used in the Final EA was followed for the reevaluation. As with the Final EA, the later steps of detailed analysis and identifying mitigation were not needed for any location because no locations were identified where demand would increase by 50 or more vehicles in the peak hour as the result of the adopted toll structure.

### ANALYSIS AND RESULTS

The analysis in the Final EA concluded that all tolling scenarios would decrease vehicle trips to the Manhattan CBD with a corresponding increase in transit trips. With the adopted toll structure, the number of daily Manhattan CBD-related journeys (i.e., round trips) by transit mode is projected to increase by 1.7 percent, within the range studied in the Final EA (as shown in Table 4A-10 on page 4A-17, increases would range from 1.2 percent to 2.5 percent for the tolling scenarios evaluated). **Table 4D.1** presents the CBD-related transit journeys for the Final EA tolling scenarios in comparison to the adopted toll structure.

**Table 4D.1 - Modified Final EA Table 4A-10. Daily Manhattan CBD-Related Transit Journeys (compared to No Action Alternative) by Tolling Scenario (2023) – With the Adopted Toll Structure Added**

NO ACTION	FINAL EA TOLLING SCENARIOS							ADOPTED TOLL STRUCTURE
	A	B	C	D	E	F	G	
1,833,770	1,856,016	1,856,487	1,864,633	1,874,509	1,878,700	1,872,355	1,860,737	1,864,947
Difference	22,246	22,717	30,863	40,739	44,930	38,585	26,967	31,177
Percentage	1.2%	1.2%	1.7%	2.2%	2.5%	2.1%	1.5%	1.7%

The Final EA described that the predicted increase in transit trips to the Manhattan CBD in the worst-case tolling scenario evaluated would result in an increase in vehicle trips to commuter rail and park-and-ride facilities, with smaller increases at other transit stations. The analysis in the Final EA concluded that the increase in commuters at individual stations or park-and-ride facilities would be distributed throughout the region, and no individual stations would have increases in vehicle trips of 50 or more vehicles in the peak hour for any tolling scenario. As shown in **Table 4D.2**, in the representative tolling scenario evaluated in the Final EA, Tolling Scenario E (the scenario with the most transit journeys), 10 station groups (7 commuter rail and 3 subway) were predicted to have increases of 50 or more peak-hour vehicle trips, with vehicle trips at individual stations ranging from 14 to 32 vehicles. Therefore, the Final EA concluded that no adverse effect on parking conditions would occur at locations in the regional study area. While additional parking demand may occur at transit facilities that have no available capacity, this level of increase would not constitute an adverse effect.

With the adopted toll structure, BPM results indicate that, as with the Final EA tolling scenarios, the predicted increase in vehicle trips to commuter rail stations, park-and-ride facilities, and other transit stations would be distributed throughout the region and no individual stations would have 50 or more new peak-hour vehicle trips. **Table 4D.2** provides information on the station groupings that would have more than 50 new peak-hour vehicle trips, and the resulting peak-hour trips per station within each grouping. Four station groups (the same three subway station groups identified for Tolling Scenario E and one new commuter rail group not identified for Tolling Scenario E) would have 50 or more new peak-hour vehicle trips, with vehicle increases at individual stations ranging from 15 to 27 for the adopted toll structure. There would be vehicle and parking demand increases in the peak hour for the adopted toll structure compared to Tolling Scenario E at the Metro-North Railroad Inner New Haven Line station group and the Fourth Avenue Brooklyn D/N/R Line subway station group. The projected increases at those two station groups would similarly not exceed the threshold of 50 vehicles per station. Therefore, the conclusions of the Final EA related to parking at transit facilities outside the Manhattan CBD remain valid.

**Table 4D.2 - Groupings of Transit Stations with More than 50 New Peak-Hour Vehicle Trips, Final EA and Adopted Toll Structure**

STATION GROUPING / STATIONS IN GROUP	FINAL EA (TOLLING SCENARIO E)		ADOPTED TOLL STRUCTURE	
	New Peak Hour Trips per Group	New Peak Hour Trips per Station	New Peak Hour Trips per Group	New Peak Hour Trips per Station
<b>Commuter Rail Stations</b>				
LIRR Massapequa Park–Babylon Group (5 stations)	141	28	—	—
LIRR Carle Place–Hicksville Group (3 stations)	96	32	—	—
LIRR Merrick–Massapequa Park Group (5 stations)	101	20	—	—
NJT Port Jervis Group (8 stations)	147	18	—	—
NJT Northeast Corridor Central Group (5 stations)	108	22	—	—
MNR Upper Hudson/Dutchess Group (3 stations)	82	27	—	—
MNR Inner Harlem Lower Group (5 stations)	125	25	—	—
MNR Inner New Haven Line Group (5 stations)	—	—	75	15
<b>Subway Stations</b>				
Queens Blvd, Queens E/F Line Group (3 stations)	83	28	60	20
Court Sq, Queens 7/E/G/M Line Group (3 stations)	82	27	81	27
Fourth Ave, Brooklyn D/N/R Line Group (6 stations)	83	14	94	16

Notes: LIRR = Long Island Rail Road; MNR = Metro-North Railroad, NJT = NJ TRANSIT  
— indicates that station group would not result in 50 or more new vehicles in the peak hour.

The Final EA also noted that the BPM did not predict increases in vehicle traffic in neighborhoods close to, but outside, the Manhattan CBD as might occur if drivers sought parking there to avoid the toll, but that this behavior might occur on a short-lived basis as part of the adjustment process. If parking demand exceeds supply in the areas close to the CBD boundary, this would not result in adverse effects using the CEQR methodology for parking analyses, which does not consider parking shortfalls in those areas to be adverse effects. The same conclusions remain true for the adopted toll structure.

The MTA Reform and Traffic Mobility Act states that the City of New York must monitor the effects of the Project on parking within and around the Manhattan CBD, and a report must be completed 18 months after the Project commences. A parking study is being led by NYCDOT and work collecting pre-implementation baseline data is under way.

**Table 4D.3** presents information from the Final EA Table ES-5 summarizing the conclusions related to parking conditions, now modified to include the adopted toll structure

## FINDINGS

The reevaluation used data from the BPM for the adopted toll structure to assess the potential for effects on parking conditions, and compared the results to the effects presented in the Final EA. BPM results for the adopted toll structure indicate that the predicted increase in vehicle trips to commuter rail stations, park-and-ride facilities, and other transit stations would be within the range evaluated in the Final EA, and the demand for parking would also be lower than the worst case, Scenario E, evaluated in the Final EA except at two station groups. The projected increases at those two station groups would not exceed the threshold of 50 vehicles per station and there would not be an adverse effect. Therefore, the analysis demonstrates that the effects of the adopted toll structure would be within the range evaluated in the Final EA and the Final EA remains valid. No adverse effects would occur and no mitigation would be required.

Table 4D.3 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
4D – Transportation: Parking	Parking Conditions	All tolling scenarios would result in a reduction in parking demand within the Manhattan CBD of a similar magnitude to the reduction in auto trips into the Manhattan CBD. With a shift from driving to transit, there would be increased parking demand at subway and commuter rail stations and park-and-ride facilities outside the Manhattan CBD.	Manhattan CBD	Narrative	Reduction in parking demand due to reduction in auto trips to CBD Model results do not indicate an increase in demand for parking in the area immediately surrounding the CBD							No	No mitigation needed. Beneficial effects	Same as Final EA	No	No mitigation needed. Beneficial effects
			Transit Facilities	Narrative	Small changes in parking demand at transit facilities, corresponding to increased commuter rail and subway ridership							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects



## 4E Transportation – Pedestrians and Bicycles

Subchapter 4E of the Final EA presented the assessment of the CBD Tolling Alternative's potential effects on pedestrian circulation; bicycle routes and bicycle infrastructure; and vehicular, pedestrian, and bicycle safety. This section reevaluates those topics for the adopted toll structure.

### METHODOLOGY

#### Final EA Methodology

Subchapter 4E presented the methodologies used for analyses in Section 4E.2.1 (methodology for pedestrian circulation analysis), Section 4E.3.1 (for bicycle assessment), and Section 4E.4.1 (for vehicular, pedestrian, and bicycle safety). As described there, those methodologies included the following steps.

#### *Pedestrians*

1. Selected for analysis the tolling scenario that would result in the largest number of new transit riders and therefore the largest increase in pedestrian volumes on sidewalks, street corners, and crosswalks outside transit hubs. Tolling Scenario E was used for the analysis of pedestrian conditions.
2. Used BPM output to identify transit stations and hubs where the CBD Tolling Alternative (Tolling Scenario E, the scenario with the largest increase in pedestrian volumes) would result in more than 200 new pedestrians in the peak hour.
3. For stations and hubs from Step 2, identified those with external pedestrian elements (sidewalks, crosswalks, or corners) where the CBD Tolling Alternative (any tolling scenario) would result in more than 200 new pedestrians per hour.
4. For stations from Step 3, conducted a detailed (quantified) analysis of capacity vs. demand to identify potential effects on pedestrian flow.
5. For any adverse effects identified in Step 4, mitigation was developed.

#### *Bicycles*

1. Based on mode share data from the New York Metropolitan Transportation Council, the analysis assumed that 2 percent of pedestrian trips at transit hubs in Manhattan may be bicycle trips.
2. With that assumption, bicycle demand vs. capacity at transit hubs was qualitatively assessed.

#### *Safety*

1. For the stations and hubs where detailed pedestrian analyses were conducted, NYCDOT accident data were reviewed to identify potential for safety issues related to changes in pedestrian volumes with the CBD Tolling Alternative.
2. For the stations where detailed pedestrian analyses were conducted, analysis locations were assessed for compliance with the Americans with Disabilities Act (ADA).



## Reevaluation Methodology

### *Pedestrians*

1. Same as in the Final EA; used BPM output to identify transit stations and hubs where the adopted toll structure would result in more than 200 new pedestrians in the peak hour.
2. Same as in the Final EA; for stations and hubs from Step 1, identified those with external pedestrian elements (sidewalks, crosswalks, or corners) where the adopted toll structure would result in more than 200 new pedestrians per hour. For those locations, identified locations where the number of incremental trips with the adopted toll structure is greater than the incremental trips associated with Tolling Scenario E.
3. If a location met the Step 2 threshold for increased pedestrians, but the increase was less than that in Tolling Scenario E, where no adverse effects were found after detailed analysis in the Final EA, then no further detailed analysis was necessary. For other locations that met the Step 2 threshold, conducted a detailed (quantified) analysis of capacity vs. demand to identify potential effects on pedestrian flow.
4. For any adverse effects identified in Step 3, reviewed adequacy of Final EA mitigation (this was not needed for any locations).

### *Bicycles and Safety*

The Project Sponsors used the same methodologies used in the Final EA for the reevaluation.

## ANALYSIS AND RESULTS

### *Pedestrians*

Both the Final EA Tolling Scenario E and the adopted toll structure would increase the total number of peak-hour transit trips throughout the region, but the increase would be lower with the adopted toll structure (1.4 percent overall) than with Final EA Tolling Scenario E (1.8 percent increase overall), as shown in Table 4E.1.

**Table 4E.1 - Modified Final EA Table 4A-10. Daily Manhattan CBD-Related Transit Journeys (compared to No Action Alternative) by Tolling Scenario (2023) – With the Adopted Toll Structure Added**

NO ACTION	FINAL EA TOLLING SCENARIOS							ADOPTED TOLL STRUCTURE
	A	B	C	D	E	F	G	
1,833,770	1,856,016	1,856,487	1,864,633	1,874,509	1,878,700	1,872,355	1,860,737	1,864,947
Difference	22,246	22,717	30,863	40,739	44,930	38,585	26,967	31,177
Percentage	1.2%	1.2%	1.7%	2.2%	2.5%	2.1%	1.5%	1.7%

The Final EA concluded that at most transit stations throughout the region, the volume of pedestrian trips would be distributed among different station entrances and different locations around the station, and no adverse effects would occur to pedestrian conditions. The analysis identified 16 stations and station hubs

where Tolling Scenario E would result in more than 200 new pedestrian trips in the peak hour, and of those, two station hubs where there would be more than 200 new pedestrian trips at individual pedestrian elements outside the stations. For those two station hubs, a quantified analysis was performed:

- World Trade Center/Fulton Street (in the Manhattan CBD)
- Herald Square/Penn Station (in the Manhattan CBD)
- The quantified analysis in the Final EA (Tolling Scenario E) found that there would be no adverse effects at the World Trade Center/Fulton Street transit hub (1,222 new peak-hour pedestrians for Tolling Scenario E and 937 new peak-hour pedestrians for the adopted toll structure). The Final EA concluded that a potential adverse effect would occur at three pedestrian elements at the Herald Square/Penn Station transit hub—a sidewalk location and two crosswalks (2,051 new peak-hour pedestrians for Tolling Scenario E and 1,063 new peak-hour pedestrians for the adopted toll structure). The Final EA determined that these effects would be mitigated, if appropriate, through standard measures to widen the pedestrian space on sidewalks (by removing obstructions) and crosswalks (by widening the striped area). The Final EA described a monitoring plan with thresholds that would trigger NYCDOT implementing these actions to increase pedestrian space.
- Based on updated BPM results for the adopted toll structure, the adopted toll structure would result in 200 new peak-hour pedestrian trips at 11 stations/station hubs (compared to 16 with Tolling Scenario E) and of those, it would result in more than 200 new peak-hour pedestrian trips at individual elements outside the station at one station hub, the Herald Square/Penn Station hub. **Table 4E.2** shows the results of the screening analysis for the Final EA (Tolling Scenario E) and the adopted toll structure.

Table 4E.2 – Modified Final EA Table 4E-1. Transit Station Pedestrian Trip Assessment (2023) – With Adopted Toll Structure Added

TRANSIT STATIONS WITH MORE THAN 200 NEW PEDESTRIANS PER HOUR		TOTAL NEW PEDESTRIANS PER PEAK HOUR (ALL PEDESTRIAN ELEMENTS)		INDIVIDUAL PEDESTRIAN ELEMENT WITH MORE THAN 200 NEW PEDESTRIANS PER PEAK HOUR	
FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE	FINAL EA SCENARIO E AM / PM	ADOPTED TOLL STRUCTURE AM / PM	FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE
14 Street–Union Square, CBD (Nos. 4/5/6, and L/N/R/Q/W subway lines)	14 Street–Union Square, CBD (Nos. 4/5/6, and L/N/R/Q/W subway lines)	403 / 434	297 / 319	No	No
Herald Square/Penn Station New York, CBD, includes the following: <ul style="list-style-type: none"> <li>34 Street–Herald Square subway station (B/D/F/M/N/Q/R/W subway lines)</li> <li>34 Street–Penn Station subway station (Nos. 1/2/3 subway lines)</li> <li>34 Street–Penn Station subway station (A/C/E subway lines)</li> <li>33rd Street Station (PATH)</li> <li>New York Pennsylvania Station (Amtrak, LIRR, NJ TRANSIT)</li> </ul>	Herald Square/Penn Station New York, CBD, includes the following: <ul style="list-style-type: none"> <li>34 Street–Herald Square subway station (B/D/F/M/N/Q/R/W subway lines)</li> <li>34 Street–Penn Station subway station (Nos. 1/2/3 subway lines)</li> <li>34 Street–Penn Station subway station (A/C/E subway lines)</li> <li>33rd Street Station (PATH)</li> <li>New York Pennsylvania Station (Amtrak, LIRR, NJ TRANSIT)</li> </ul>	2,003 / 2,051	1,036 / 1,063	Yes	Yes
42 Street–Bryant Park, CBD (B/D/F/M subway lines and connection to Fifth Avenue [No. 7 subway line])	—	204 / 219	165 / 177	No	—
47-50 Streets–Rockefeller Center, Manhattan CBD (B/D/F/M subway lines)	47-50 Streets–Rockefeller Center, CBD (B/D/F/M subway lines)	273 / 294	246 / 265	No	No
Broadway–Lafayette Street, Manhattan CBD (B/D/F/M and No. 6 subway lines)	Broadway–Lafayette Street, CBD (B/D/F/M and No. 6 subway lines)	288 / 311	193 / 208	No	No
Canal Street, CBD (J/N/Q/R/W/Z and No. 6 subway lines)	—	190 / 205	142 / 152	No	—
Canal Street, CBD (A/C/E subway lines)	—	228 / 246	145 / 156	No	—
World Trade Center/Fulton Street, CBD, includes the following: <ul style="list-style-type: none"> <li>Fulton Street subway stations (Nos. 2/3/4/5 and A/C/J/Z subway lines)</li> <li>World Trade Center Station (PATH)</li> <li>Cortlandt Street Station (R/W subway lines)</li> </ul>	World Trade Center/Fulton Street, CBD, includes the following: <ul style="list-style-type: none"> <li>Fulton Street subway stations (Nos. 2/3/4/5 and A/C/J/Z subway lines)</li> <li>World Trade Center Station (PATH)</li> <li>Cortlandt Street Station (R/W subway lines)</li> </ul>	1,134 / 1,222	872 / 937	Yes	No
Flushing Main Street, Queens, NY (No. 7 subway line)	Flushing Main Street, Queens, NY (No. 7 subway line)	263 / 283	288 / 310	No	No

TRANSIT STATIONS WITH MORE THAN 200 NEW PEDESTRIANS PER HOUR		TOTAL NEW PEDESTRIANS PER PEAK HOUR (ALL PEDESTRIAN ELEMENTS)		INDIVIDUAL PEDESTRIAN ELEMENT WITH MORE THAN 200 NEW PEDESTRIANS PER PEAK HOUR	
FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE	FINAL EA SCENARIO E AM / PM	ADOPTED TOLL STRUCTURE AM / PM	FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE
Atlantic Terminal, Brooklyn, NY, includes the following: <ul style="list-style-type: none"> <li>Atlantic Avenue–Barclays Center subway station (Nos. 2/3/4/5 and B/D/N/Q/R/W subway lines)</li> <li>Atlantic Terminal (LIRR)</li> </ul>	—	230 / 236	145 / 144	No	—
Grand Central Terminal, CBD, includes the following: <ul style="list-style-type: none"> <li>42 Street–Grand Central subway station (Nos. 4/5/6/7/S subway lines)</li> <li>Grand Central Terminal (Metro-North Railroad)</li> </ul>	Grand Central Terminal, CBD, includes the following: <ul style="list-style-type: none"> <li>42 Street–Grand Central subway station (Nos. 4/5/6/7 and S subway lines)</li> <li>Grand Central Terminal (Metro-North Railroad)</li> </ul>	1,163 / 1,205	963 / 989	No	No
Lexington Avenue/53 Street, Manhattan CBD (E/M subway lines and connection to 51 Street [No. 6 subway line])	Lexington Avenue/53 Street, CBD (E/M subway lines and connection to 51 Street [No. 6 subway line])	348 / 374	252 / 270	No	No
Second Avenue, CBD (F subway line)	—	195 / 210	143 / 154	No	—
Wall Street, CBD (Nos. 2/3 subway lines)	—	189 / 204	149 / 160	No	—
Secaucus, Hudson County, NJ (NJ TRANSIT)	Secaucus, Hudson County, NJ (NJ TRANSIT)	547 / 547	375 / 375	No	No
Hoboken Terminal, Hudson County, NJ (PATH/NJ TRANSIT)	Hoboken Terminal, Hudson County, NJ (PATH/NJ TRANSIT)	802 / 826	263 / 274	No	
—	Jackson Heights–Roosevelt Avenue, Queens, NY (E/F/M/R/No. 7 subway lines)	151 / 163	203 / 218	—	No

Source: WSP, Best Practice Model.

Note: — station would not result in 200 or more new pedestrians in the peak hour.

With the adopted toll structure, at the transit hub where incremental peak-hour pedestrian volumes would exceed the screening threshold of 200 trips per hour, three pedestrian elements would exceed the 200-trip-per-hour threshold and therefore warranted additional analysis (see **Table 4E.3**). These were elements that also exceeded the screening threshold with Final EA Tolling Scenario E, but they were not the elements where the Final EA identified adverse effects. At these locations, where the adopted toll structure would result in more than 200 new pedestrians in the peak hour, incremental pedestrian volumes resulting from the adopted toll structure would be approximately 50 percent smaller than the incremental pedestrian volumes from Tolling Scenario E. Since the Final EA did not find adverse effects at these locations from Tolling Scenario E, adverse effects also would not occur from the adopted toll structure.

The Final EA (Tolling Scenario E) identified adverse effects at the west sidewalk of Eighth Avenue between 34th Street and 35th Street, the north crosswalk of Seventh Avenue and 32nd Street, and the north crosswalk of Sixth Avenue and 34th Street. The adopted toll structure would not result in more than 200 new pedestrians in the peak hour at any of those locations and therefore the adverse effects would no longer occur with the adopted toll structure. While mitigation at Herald Square is no longer needed with the adopted toll structure, the Project Sponsors will implement the mitigation described in the Final EA and FONSI as an enhancement.

**Table 4E.3 – Modified Final EA Table 4E.2-14 (from Appendix 4E). Pedestrian Level 2 Screening Analysis Results – Herald Square/Penn Station Study Area (2023) – With Adopted Toll Structure and Addition of Impact Results**

PEDESTRIAN ELEMENTS	FINAL EA (SCENARIO E)					ADOPTED TOLL STRUCTURE				
	INCREMENTAL PEDESTRIAN TRIPS			ANALYSIS LOCATION	ADVERSE EFFECT	INCREMENTAL PEDESTRIAN TRIPS			ANALYSIS LOCATION	ADVERSE EFFECT
	AM	Midday	PM			AM	Midday	PM		
Eighth Ave and 34th St										
North sidewalk along 34th St between Seventh Ave and Eighth Ave	319	64	193	✓	No	163	32	102		No
South sidewalk along 34th St between Seventh Ave and Eighth Ave	62	30	173		No	*	*	*		No
West sidewalk along Eighth Ave between 34th St and 35th St	221	53	204	✓	Yes: AM, PM	114	27	104		No
Northeast corner	319	65	193	✓	No	163	33	102		No
Southeast corner	62	30	173		No	*	*	*		
Southwest corner	64	44	284	✓	No	37	22	141		No
Northwest corner	261	63	242	✓	No	135	32	125		No
North crosswalk	259	49	131	✓	No	132	25	70		No
South crosswalk	62	30	173		No	*	*	*		No
Eighth Ave and 31st St										
West sidewalk along Eighth Ave between 31st St and 32nd St	192	46	179		No	*	*	*		No
Southwest corner	172	42	159		No	*	*	*		No
Northwest corner	200	48	188		No	103	25	98		No
West crosswalk	160	38	146		No	*	*	*		No
Seventh Ave and 34th St										
East sidewalk along Seventh Ave between 34th St and 35th St	59	21	105		No	*	*	*		No
North sidewalk along 34th St between Seventh Ave and Broadway	500	128	532	✓	No	258	67	275	✓	No
Northeast corner	131	35	143		No	*	*	*		No
Northwest corner	104	22	71		No	*	*	*		No
Seventh Ave and 32nd St										
North sidewalk along 32nd St between Sixth Ave and Seventh Ave	399	82	262	✓	No	201	42	137	✓	No
West sidewalk along Seventh Ave between 31st St and 32nd St	34	22	144		No	*	*	*		No
Northeast corner	252	40	70	✓	No	127	20	38		No
North crosswalk	221	36	69	✓	Yes: AM	111	18	37		No

PEDESTRIAN ELEMENTS	FINAL EA (SCENARIO E)					ADOPTED TOLL STRUCTURE				
	INCREMENTAL PEDESTRIAN TRIPS			ANALYSIS LOCATION	ADVERSE EFFECT	INCREMENTAL PEDESTRIAN TRIPS			ANALYSIS LOCATION	ADVERSE EFFECT
	AM	Midday	PM			AM	Midday	PM		
Broadway and 34th St										
North sidewalk along 34th St between Seventh Ave and Broadway	460	121	518	✓	No	238	64	269	✓	No
Sixth Avenue and 34th St										
East sidewalk along Sixth Ave between 34th St and 35th St	131	31	118		No	*	*	*		No
North sidewalk along 34th St between Fifth Ave and Sixth Ave	241	57	220	✓	No	125	29	113		No
South sidewalk along 34th St between Fifth Ave and Sixth Ave	100	18	43		No	*	*	*		No
Northeast corner	313	72	268	✓	No	162	37	137		No
North crosswalk	265	65	259	✓	Yes: AM, PM	136	33	132		No

Notes: ✓ denotes pedestrian elements selected for detailed analysis (AM/PM only).

\* Pedestrian elements with fewer than 100 project-generated pedestrian trips in a peak hour are not presented in this table.

**Table 4E.4 – Comparison of Pedestrian Effects, Final EA and Adopted Toll Structure**

ANALYSIS STEP	FINAL EA (SCENARIO E)	ADOPTED TOLL STRUCTURE
1. Transit stations / hubs with more than 200 new pedestrians in the peak hour	<b>16 stations/hubs</b>	<b>11 stations/hubs</b>
2. Transit stations / hubs with individual pedestrian elements that have more than 200 new pedestrians in the peak hour	<b>2 stations/hubs</b> Herald Square/Penn Station 14 elements would exceed: 6 sidewalks 5 corner reservoirs 3 crosswalks World Trade Center/Fulton St 2 elements would exceed: 1 sidewalk 1 corner reservoir	<b>1 station/hub</b> Herald Square/Penn Station 3 elements would exceed: 3 sidewalks
3. For intersections identified in Step 2, detailed level-of-service analysis to identify adverse effects (if needed after comparison to Tolling Scenario E)	<b>Adverse effects at 1 station/hub</b> Herald Square/Penn Station Of the 14 elements analyzed, 3 potential adverse effects: 1 sidewalk 2 crosswalks	<b>No adverse effects</b> The 3 elements that had potential adverse effects under Tolling Scenario E were not flagged in Step 2 for the adopted toll structure.  For the adopted toll structure, the increase in pedestrians at each element that were flagged in Step 2 was less than the increment for Tolling Scenario E, and no adverse effects were found for Tolling Scenario E at those locations.
4. For adverse effects, identification of mitigation measures	<b>Mitigation needed</b> – monitoring plan resolved adverse effects at Herald Square/Penn Station	No mitigation needed



## Bicycles

The Final EA concluded that the CBD Tolling Alternative would result in small increases in bicycle trips near transit hubs where the highest increases in pedestrian trip share would occur, and some shifts from automobiles to bicycles. No adverse effects on bicycle conditions would occur. With the adopted toll structure, pedestrian volumes, and hence estimated bicycle volumes, would be lower than predicted in the Final EA, and the conclusions of the Final EA remain valid.

## Safety

The Final EA found that the CBD Tolling Alternative would result in reduced vehicle volumes in the Manhattan CBD, which would result in an overall benefit to safety. No substantial increases in pedestrian volumes or safety concerns at transit stations would occur. None of the curb ramps at locations analyzed in detail in the Final EA met ADA compliance when the analysis was prepared, but NYCDOT has an ongoing Pedestrian Ramp Program dedicated to upgrading and installing pedestrian ramps throughout New York City. With the adopted toll structure, pedestrian volumes would be lower than predicted in the Final EA and the conclusions of the Final EA remain valid.

**Table 4E.5** presents information from the Final EA Table ES-5 summarizing the conclusions related to pedestrians and bicycles, now modified to include the adopted toll structure.

## FINDINGS

The analysis conducted for the reevaluation considered the effects of the adopted toll structure on pedestrian and bicycle conditions using the same methodology as used for the Final EA. The analysis concluded that both the Project as evaluated in the Final EA (Tolling Scenario E) and the adopted toll structure would increase the number of peak-hour transit trips throughout the region, which would also result in an increase in pedestrian trips near transit stations, but the increase would be lower with the adopted toll structure (1.4 percent overall) than with Final EA Tolling Scenario E (which had an increase of 2.5 percent). While the Final EA predicted an adverse effect on pedestrian conditions at one sidewalk and two crosswalks near the Herald Square/Penn Station transit hub within the Manhattan CBD, this adverse effect would no longer occur with the adopted toll structure, and mitigation would no longer be required. Incremental pedestrian volumes around the Herald Square/Penn Station transit hub would be approximately 50 percent lower with the adopted toll structure than predicted in the Final EA. In addition, the adopted toll structure would not result in adverse effects on pedestrian conditions at other locations. Therefore, the conclusions of the Final EA remain valid. Although the mitigation measures described in the Final EA and FONSI would no longer be needed at Herald Square/Penn Station, the Project Sponsors would implement the commitments related to pedestrian conditions described in the Final EA and FONSI as an enhancement.

Table 4E.5 – Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
4E – Transportation: Pedestrians and Bicycles	Pedestrian Circulation	Increased pedestrian activity on sidewalks outside transit hubs because of increased transit use. At all but one location in the Manhattan CBD (Herald Square/Penn Station), the increase in transit riders would not generate enough new pedestrians to adversely affect pedestrian circulation in the station area. Outside the Manhattan CBD, transit usage at individual stations would not increase enough to adversely affect pedestrian conditions on nearby sidewalks, crosswalks, or corners.	Herald Square/Penn Station NY	Sidewalks, corners, and crosswalks with pedestrian volumes above threshold in AM / PM peak periods	Adverse effects on pedestrian circulation at one sidewalk segment and two crosswalks							Yes	<b>Mitigation needed.</b> The Project Sponsors will implement a monitoring plan at this location. The plan will include a baseline, specific timing, and a threshold for additional action. If that threshold is reached, NYCDOT will increase pedestrian space on sidewalks and crosswalks via physical widening and/or removing or relocating obstructions.	Pedestrian volumes at key transit stations/hubs would be similar to those predicted in Final EA. Adverse effects are no longer predicted at Herald Square.	No	<b>Mitigation is no longer needed.</b> The Project Sponsors will implement the mitigation commitment described in the Final EA, including monitoring and improvements, if warranted, as an enhancement
	Bicycles	Small increases in bicycle trips near transit hubs and as a travel mode	Manhattan CBD	Narrative	Small increases in bicycle trips near transit hubs with highest increases in pedestrian trip share							No	<b>No mitigation needed.</b> No adverse effects	Same as Final EA	No	<b>No mitigation needed.</b> No adverse effects
			Outside Manhattan CBD	Narrative	Some shifts from automobile to bicycles							No	<b>No mitigation needed.</b> No adverse effects		No	<b>No mitigation needed.</b> No adverse effects
	Safety	No adverse effects	Overall	Narrative	No substantial increases in pedestrian volumes or increased safety concerns, including at existing identified high-crash locations. Overall, with fewer vehicular trips entering and exiting the Manhattan CBD, the CBD Tolling Alternative could result in reduced traffic volumes at these locations. This would help to reduce vehicle-vehicle and vehicle-pedestrian conflicts, leading to an overall benefit to safety.							No	<b>No mitigation needed.</b> No adverse effects	Same as Final EA	No	<b>No mitigation needed.</b> No adverse effects

## 5 Social Conditions: Population Characteristics and Community Cohesion (EA Subchapter 5A), Neighborhood Character (EA Subchapter 5B), and Public Policy (EA Subchapter 5C)

Chapter 5 of the Final EA encompassed three subchapters (Subchapters 5A, 5B, and 5C) that together presented an assessment of the potential effects of implementing the CBD Tolling Alternative on social conditions, which included population characteristics and community cohesion (incorporating consideration of community facilities and services, access to employment, and effects on vulnerable social groups), neighborhood character, and public policy. This section reevaluates the effects of the adopted toll structure on those conditions.

### METHODOLOGY

#### Final EA Methodology

The Final EA considered the range of issues that together constitute social conditions, consistent with FHWA guidance documents. Information on population characteristics was largely based on the U.S. Census Bureau's 2015–2019 American Community Survey (ACS) 5-Year Estimates. BPM results were used to evaluate the Project's effects on those characteristics. The methodologies used are described in further detail in the Final EA in Subchapter 5A, "Population Characteristics and Community Cohesion," Section 5A.2, "Methodology" starting on page 5A-1 and Subchapter 5B, "Neighborhood Character," Section 5B.2.1, "Methodology" starting on page 5B-1.

#### Reevaluation Methodology

The same methodology was used for reevaluation of the adopted toll structure. BPM output for the adopted toll structure was compared to the results evaluated in the Final EA to determine potential changes in conclusions related to social conditions.

### ANALYSIS AND RESULTS

The Final EA concluded that the congestion reductions resulting from the CBD Tolling Alternative would positively affect community connections and access to employment, education, healthcare, and recreation for residents. Based on an analysis of BPM results and other contextual information about the study area, the Final EA also concluded the following:

- The predicted changes in travel patterns would not adversely affect community cohesion. Changes to travel patterns, including increased use of transit, as a result of the Project would not adversely affect

community cohesion or make it more difficult for people to connect with others in their community, given the extensive transit network connecting to the Manhattan CBD and the small change in trips predicted.

- The Project would not result in the potential for indirect (involuntary) residential displacement. The Project would not result in the potential for indirect (involuntary) residential displacement. It would not result in substantial changes to market conditions so as to lead to changes in housing prices, given that real estate values in the Manhattan CBD are already high and the many factors that affect each household's decisions about where to live. In addition, low-income residents of the CBD would not experience a notable increase in the cost of living as a result of the Project because of the lack of change in housing costs, the many housing units protected through New York's rent-control, rent-stabilization, and other similar programs, the tax credit available to CBD residents with incomes of up to \$60,000, and the conclusion that the cost of goods would not increase as a result of the Project.
- While the Project would increase costs for community service providers that operate vehicles into and out of the Manhattan CBD and for people who travel by vehicle to community facilities and services in the Manhattan CBD or from the CBD, given the wide range of travel options other than driving, the cost for users to drive to community facilities and services would not constitute an adverse effect on community facilities and services.
- The Project would not adversely affect vulnerable social groups, including elderly populations, persons with disabilities, transit-dependent populations, and non-driver populations. The specific costs incurred by each individual would vary depending on their particular circumstances. Many people, and particularly transit-dependent and non-driver populations, would benefit from travel-time and reliability improvements to bus service due to traffic reductions as well as from improvements to transit services.
- Access to employment in the Manhattan CBD would not be adversely affected. Most commuters to the CBD currently use transit. Those who drive despite the CBD toll would do so based on the need or convenience of driving and would benefit from the reduced congestion in the Manhattan CBD. There would be a negligible effect (less than 0.1 percent) on travel to employment within the Manhattan CBD and reverse-commuting from the CBD due to the wide range of transit options available and the small number of commuters who drive today (11 percent of all commuters, or approximately 142,500 of the nearly 1.3 million people who commute to the Manhattan CBD from locations outside the CBD).
- The changes in traffic patterns on local streets would not change the defining elements of the neighborhood character of the Manhattan CBD, which includes a variety of different land use types and neighborhoods. As described in the Final EA in Chapter 5, "Social Conditions," Section 5A.4.2.1 (see page 5A-17) and Section 5B.4.2 (see page 5B-11), the predicted decrease in traffic volumes would result in beneficial effects to social conditions and neighborhood character within the CBD.
- The Project would be consistent with regional transportation plans and other public policies.

With the adopted toll structure, automobile toll rates are within the range evaluated in the Final EA. The Final EA described the potential changes in travel patterns that might occur with the new toll, with changes in the number of daily journeys (where a journey is a round-trip) to the Manhattan CBD by all modes for Tolling Scenarios A through F ranging from a decrease of 1,886 to an increase of 3,147 daily journeys, or

changes of -0.07 percent to +0.11 percent from the No Action Alternative. With the adopted toll structure, there would be an increase of 846 daily journeys to the CBD, an increase of 0.03 percent from the No Action Alternative, which is within the range evaluated in the Final EA (see **Table 5.1**). The effects on travel patterns (e.g., the change in total daily journeys to the Manhattan CBD) for non-work-related journeys such as travel for school, shopping, medical care, or entertainment purposes) would also be within the range evaluated in the Final EA. The adopted toll structure would result in an increase in these journeys of 0.1 percent and the change for the tolling scenarios evaluated in the Final EA/FONSI ranged from a decrease of 0.4 percent to an increase of 0.2 percent (see **Table 5.2**). The adopted toll structure includes a low-income discount plan that provides a greater discount than the commitments of the Final EA and FONSI (50 percent toll reduction after 10 trips versus the Final EA's commitment to 25 percent toll reduction after 10 trips). In addition, while the Final EA described that qualifying vehicles transporting people with disabilities would be exempt from the toll, the adopted toll structure includes two specific plans that would enable individuals with disabilities and organizations that transport such individuals to apply for an exemption from the CBD toll: an Individual Disability Exemption Plan and an Organization Disability Exemption Plan. Therefore, the conclusions of the Final EA remain valid.

**Table 5.1 – Change in Total Daily Journeys (All Modes) To, Within, and From the Manhattan CBD – Final EA and Adopted Toll Structure\***

PARAMETER	FINAL EA TOLLING SCENARIOS							ADOPTED TOLL STRUCTURE
	A	B	C	D	E	F	G	
Auto toll rates – peak	\$9	\$10	\$14	\$19	\$23	\$23	\$12	\$15
Auto toll rates – off-peak	\$7	\$8	\$11	\$14	\$17	\$17	\$9	\$3.75
Auto toll rates – overnight	\$5	\$5	\$7	\$10	\$12	\$12	\$7	
Low-income discount plan	25% discount**							50% discount**
Change in total daily journeys to, within, and from the Manhattan CBD	+305 (+0.01%)	+2,993 (+0.10%)	+3,147 (+0.11%)	-1,886 (-0.07%)	-660 (-0.02%)	+1,424 (+0.05%)	+1,141 (+0.04%)	+846 (+0.03%)

\* See Final EA Table 5A-3, pg. 5A-23.

\*\* The Final EA committed to a Low-Income Discount Plan with a 25% discount on the peak toll rate after the first 10 trips each month (resulting in a discounted base auto toll rate of \$7 - \$17). The adopted toll structure has a 50% discount on the peak toll rate after the first 10 trips each month (resulting in a discounted base auto toll rate of \$7.50).

**Table 5.2 – Predicted Changes in Non-Work Journeys in Final EA and Adopted Toll Structure (2023)\***

PARAMETER	FINAL EA TOLLING SCENARIOS							ADOPTED TOLL STRUCTURE
	A	B	C	D	E	F	G	
Change in non-work-related journeys to, within, and from the Manhattan CBD vs. No Action Alternative	-803 (-0.2%)	+2,124 (+0.2%)	+364 (+0.04%)	-3,726 (-0.4%)	-2,660 (-0.3%)	+570 (+0.1%)	-368 (-0.04%)	+836 (+0.1%)

\* See Final EA Table 5A-5, pg. 5A-25.

**Table 5.3** presents information from the Final EA Table ES-5 summarizing the conclusions related to social conditions, now modified to include the adopted toll structure.

## FINDINGS

To consider the effect of the adopted toll structure on social conditions, the Project Sponsors reviewed the parameters of the toll structure and BPM results for the adopted toll structure in comparison to results evaluated in the Final EA with respect to factors that affect social conditions, such as travel patterns, work-related and non-work-related trips, and changes in traffic patterns that could affect localized neighborhood character. As presented earlier, the toll rates and other parameters fall within the range evaluated in the Final EA. In addition, BPM results for the adopted toll structure for factors affecting social conditions also fall within the range evaluated in the Final EA. Consequently, the conclusions of the Final EA remain valid. No new adverse effects would occur and no new mitigation would be required.

Table 5.3 – Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
5A – Social Conditions: Population	Benefits	Benefits in and near the Manhattan CBD	28-county study area	Narrative	Benefits in and near the Manhattan CBD related to travel-time savings, improved travel-time reliability, reduced vehicle operating costs, improved safety, reduced air pollutant emissions, and predictable funding source for transit improvements. This would positively affect community connections and access to employment, education, healthcare, and recreation for residents.							No	No mitigation needed. Beneficial effects	Same as Final EA	No	No mitigation needed. Beneficial effects
	Community Cohesion	Changes to travel patterns, including increased use of transit, resulting from new toll	28-county study area	Narrative	Changes to travel patterns, including increased use of transit, as a result of the Project would not adversely affect community cohesion or make it more difficult for people to connect with others in their community, given the extensive transit network connecting to the Manhattan CBD and the small change in trips predicted.							No	No mitigation needed. No adverse effects (see “Environmental Justice” for mitigation related to increased costs for low-income drivers).	Same as Final EA	No	No mitigation needed. Beneficial effects
	Indirect Displacement	No notable changes in socioeconomic conditions or cost of living so as to induce potential involuntary displacement of residents	Manhattan CBD	Narrative	The Project would not result in the potential for indirect (involuntary) residential displacement. It would not result in substantial changes to market conditions so as to lead to changes in housing prices, given that real estate values in the Manhattan CBD are already high and the many factors that affect each household’s decisions about where to live. In addition, low-income residents of the CBD would not experience a notable increase in the cost of living as a result of the Project because of the lack of change in housing costs, the many housing units protected through New York’s rent-control, rent-stabilization, and other similar programs, the tax credit available to CBD residents with incomes of up to \$60,000, and the conclusion that the cost of goods would not increase as a result of the Project (see “Economic Conditions”).							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
	Community Facilities and Services	Increased cost for community facilities and service providers in the Manhattan CBD, their employees who drive, and clientele who drive from outside the CBD	Manhattan CBD	Narrative	The Project would increase costs for community service providers that operate vehicles into and out of the Manhattan CBD and for people who travel by vehicle to community facilities and services in the Manhattan CBD, as well as residents of the CBD and employees of community facilities who use vehicles to travel to community facilities outside the CBD. Given the wide range of travel options other than driving, the cost for users to drive to community facilities and services would not constitute an adverse effect on community facilities and services.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
	Effects on Vulnerable Social Groups	Benefits to vulnerable social groups from new funding for MTA Capital Program	28-county study area	Narrative	<p>The Project would benefit certain vulnerable social groups, including elderly populations, persons with disabilities, transit-dependent populations, and non-driver populations by creating a funding source for the MTA 2020–2024 Capital Program (and subsequent capital programs and by reducing congestion in the Manhattan CBD).</p> <p>Elderly individuals would benefit from the travel-time and reliability improvements to bus service with the CBD Tolling Alternative, as bus passengers tend to be older than riders on other forms of transit, such as the subway and, as described above, bus passengers in the Manhattan CBD would benefit from travel-time savings due to the decrease in congestion.</p> <p>People over the age of 65 with a qualifying disability receive a reduced fare on MTA subways and buses, and elderly individuals with a qualifying disability can also receive MTA’s paratransit service, including taxis and FHV’s operating on behalf of MTA to transport paratransit users. Elderly people with disabilities and low-income individuals who drive to the Manhattan CBD would be entitled to the same mitigation and enhancements proposed for low-income and disabled populations, in general. Other elderly individuals who drive to the Manhattan CBD would pay the toll.</p>							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
	Access to Employment	Increased cost for small number of people who drive to work	28-county study area	Narrative	Decrease in work trips by driving modes to and within the Manhattan CBD, with an offsetting increase in transit ridership. Those who drive despite the CBD toll would do so based on the need or convenience of driving and would benefit from the reduced congestion in the Manhattan CBD. Negligible effect (less than 0.1%) on travel to employment within the Manhattan CBD and reverse-commuting from the CBD due to the wide range of transit options available and the small number of commuters who drive today.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects



Table 5.3 – Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
5B – Social Conditions: Neighborhood Character	Neighborhood character	No notable change in neighborhood character	Manhattan CBD	Narrative	The changes in traffic patterns on local streets would not change the defining elements of the neighborhood character of the Manhattan CBD.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
			Area near 60th Street Manhattan CBD boundary	Narrative	Changes in parking demand near the 60th Street CBD boundary (including increases just north of 60th Street and decreases just to the south) would not create a climate of disinvestment that could lead to adverse effects on neighborhood character nor alter the defining elements of the neighborhood character of this area.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
5C – Social Conditions: Public Policy	Public policy	No effect	28-county study area	Narrative	The Project would be consistent with regional transportation plans and other public policies in place for the regional study area and the Manhattan CBD.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects



## 6 Economic Conditions

Chapter 6 of the Final EA presented an assessment of the potential effects of implementing the CBD Tolling Alternative on economic conditions at both the regional and neighborhood level. This section reevaluates the effects of the adopted toll structure on those conditions.

### METHODOLOGY

#### Final EA Methodology

Chapter 6 of the Final EA detailed the methodology used for the assessment on economic conditions in Section 6.2, beginning on page 6-1. As presented there, that included the following:

1. Identified baseline conditions using data from the U.S. Census, U.S. Department of Labor, and other sources with information on economic activities in the CBD and the 28-county regional study area
2. Used BPM output related to the Final EA tolling scenarios to identify potential changes for all tolling scenarios related to:
  - Movement of workforce
  - Non-work-related trips, including tourism
  - Taxi and FHV industry
  - Movement of goods and services and related effects on small businesses
  - Neighborhood-level effects near the 60th Street CBD boundary

#### Reevaluation Methodology

1. Compared BPM output for the adopted toll structure to the results evaluated in the Final EA to determine potential changes in conclusions related to economic conditions, for the same topics evaluated in the Final EA

### ANALYSIS AND RESULTS

#### Movement of Workforce

The Final EA concluded that no adverse economic effects would occur to any particular industry or occupational category as a result of the Project. The Manhattan CBD is highly accessible by transit and the majority of people who work in the CBD use transit to travel to work. While certain industries and occupations in the CBD have higher rates of auto commuting, these businesses have a small number of employees overall.

With the adopted toll structure (\$15 with E-ZPass) and a corresponding reduction of 17,290 worker journeys (round-trips) to, from, and within the CBD, automobile toll rates are within the range evaluated in the Final EA (\$9 to \$23 with E-ZPass) as is the predicted reduction in total worker journeys, which ranged from 11,790 to 27,221 for the tolling scenarios evaluated in the Final EA. The effects on the workforce would therefore be consistent with the conclusions of the Final EA (see **Table 6.1** below). The conclusions of the Final EA remain valid.

**Table 6.1 - Change in Daily Worker Journeys To, Within, and From the Manhattan CBD – Final EA and Adopted Toll Structure\***

PARAMETER	FINAL EA TOLLING SCENARIOS							ADOPTED TOLL STRUCTURE
	A	B	C	D	E	F	G	
Auto toll rates – peak	\$9	\$10	\$14	\$19	\$23	\$23	\$12	\$15
Auto toll rates – off-peak	\$7	\$8	\$11	\$14	\$17	\$17	\$9	\$3.75
Auto toll rates – overnight	\$5	\$5	\$7	\$10	\$12	\$12	\$7	\$3.75
Change in total daily worker journeys by auto <b>to and within</b> the Manhattan CBD vs. No Action Alternative	-12,552 (-4.6%)	-11,790 (-4.4%)	-17,271 (-6.4%)	-23,877 (-8.8%)	-27,221 (-10.1%)	-24,230 (-9.0%)	-13,264 (-4.9%)	-17,290 (-6.4%)
Change in total daily worker journeys by auto <b>from</b> the Manhattan CBD vs. No Action Alternative	-482 (-3.8%)	-328 (-2.6%)	-661 (-5.3%)	-961 (-7.7%)	-916 (-7.3%)	-621 (-5.0%)	-550 (-4.4%)	-420 (-3.4%)

\* See Final EA Table 6-23, pg. 6-51.

### Non-Work-Related Trips, Including Tourism

The tourism industry in the CBD is not dependent on travel by autos or taxis/FHVs; most visitors (96 percent) use transit, walking, or tour buses to reach the CBD. The Final EA evaluated the CBD Tolling Alternative's potential effects on non-work-related journeys to and within the Manhattan CBD, including trips made for shopping and tourism. All tolling scenarios would result in small changes in non-work-related journeys to and within CBD from the No Action Alternative.

The Final EA concluded that the tolling scenarios would not adversely affect tourism or other industries related to non-work-related trips. The Final EA showed the predicted change in the number of non-work journeys to and within the CBD, which ranged from a reduction of 3,726 to an increase of 2,124. As shown in **Table 6.2**, the adopted toll structure would result in an increase of 836 non-work-related journeys (across all modes) to and within CBD, which falls within the range evaluated in the Final EA, and the conclusions of the Final EA remain valid.

**Table 6.2 - Predicted Changes in Non-Work Journeys (2023), Final EA and Adopted Toll Structure\***

PARAMETER	FINAL EA TOLLING SCENARIOS							ADOPTED TOLL STRUCTURE
	A	B	C	D	E	F	G	
Change in Non-Work-Related Journeys To and Within CBD vs. No Action Alternative	-803 (-0.2%)	+2,124 (+0.2%)	+364 (+0.04%)	-3,726 (-0.4%)	-2,660 (-0.3%)	+570 (+0.1%)	-368 (-0.04%)	+836 (+0.1%)

\* See Final EA Table 6-28, pg. 6-58.

## Taxi and FHV Industry

The Final EA assessed the effects of the CBD Tolling Alternative on the taxi and FHV industry. The tolling scenarios evaluated in the Final EA included a variety of tolling policies for taxis and FHV, ranging from unlimited tolling for taxis each day to a complete exemption from paying the CBD toll. In all tolling scenarios, the base toll price for taxis and FHV, if any, was the same as for automobiles.

The analysis in the Final EA showed that in all tolling scenarios, the VMT for taxis and FHV with paying customers (i.e., excluding VMT without paying customers in the vehicle) would decrease regionwide, in New York City, and in Manhattan overall. The reductions would be greatest in New York City, ranging from 5 to 9 percent in tolling scenarios that do not include a cap or exemption for tolls on taxis and FHV (Tolling Scenarios A, D, and G) and 1 to 5 percent in those that do have caps and/or exemptions (Tolling Scenarios B, C, E, and F). For tolling scenarios with no cap or exemption for tolls on taxis and FHV, VMT reductions would be largest within the Manhattan CBD, which is the core service area for yellow taxis, as well as in Manhattan overall.

The Final EA concluded that tolling scenarios that would toll taxis and/or FHV more than once a day would result in VMT reductions at a level that could adversely affect income and, potentially, employment for individual drivers (see discussion of environmental justice), but that the industry would remain viable overall. For the Final EA, the Project Sponsors committed to ensure that a toll structure with tolls of no more than once per day for taxis or FHV is included in the final toll structure to avoid an adverse effect on taxi and FHV drivers from the Project.

The Final EA described that in terms of economic impacts on businesses and industries, the change in taxi and FHV operations and business practices without the new commitment, while adverse for taxi and FHV drivers, would not have resulted in an adverse economic impact on the industry overall.

With the adopted toll structure, taxi and FHV would be tolled for each trip entering, leaving, and within the CBD made with passengers. The base toll for taxis (including yellow taxis, green cabs, and FHV other than high-volume FHV) would be \$1.25 per trip with paying passengers for trips to, within, or from the Manhattan CBD; for high-volume FHV, the base toll would be \$2.50 per trip with paying passengers for trips to, within, or from the Manhattan CBD.<sup>4</sup> Based on the average number of trips taxis and FHV make each day, the toll amount for taxis and FHV is equivalent to the once-daily auto peak rate in the adopted toll structure of \$15. Based on a New York City Taxi and Limousine Commission (TLC) analysis of trips made by TLC-licensed vehicles in May 2023, the average number of taxi and FHV trips to, within, and from the Manhattan CBD is 12 and 6, respectively. Thus, this rate is consistent with the Project Sponsors' commitment to incorporate a toll of no more than once per day for taxis and FHV in the adopted toll

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<sup>4</sup> The Final EA provides information on the types of vehicles licensed by the New York City Taxi and Limousine Commission (TLC) in Chapter 6, "Economic Conditions," Section 6.3.2.6, on page 6-32. These include yellow cabs, for which TLC has issued medallions; green cabs, which are street-hail livery cabs that begin their trips outside the core service area of Manhattan; and FHV, which provide pre-arranged service. Vehicles licensed as app-based, or high-volume, FHV operate from bases that dispatch more than 10,000 trips a day. (<https://www.nyc.gov/site/tlc/businesses/high-volume-for-hire-services.page>). Currently there are two TLC-licensed high-volume FHV: Lyft and Uber. In this reevaluation document and the Final EA, the term "taxi" is used to refer to yellow cabs, green cabs, and FHV that are not high-volume FHV and the term "FHV" refers to high-volume FHV (i.e., Lyft and Uber).

structure, and falls within the range of daily peak toll rates evaluated in the Final EA and determined not to have an adverse effect on either drivers or the industry, which was from \$9 to \$23 in the different tolling scenarios (see **Table 6.3**). This rate structure also ensures that the passenger is responsible for covering the cost of the toll and the drivers do not bear the additional cost.

As shown in **Table 6.4**, the resulting change in VMT for taxis and FHV drivers with paying passengers with the adopted toll structure would also fall within the range evaluated in the Final EA for tolling scenarios that were determined not to have an adverse effect on revenues for taxi and FHV drivers—those that limited tolls for taxis and FHV drivers to once per day. In the Final EA, Tolling Scenarios B, F, and Modified G limited tolls on taxis and FHV drivers to once per day, with peak toll rates for autos ranging from \$10 to \$23. The toll for taxis and FHV drivers in those scenarios would apply for trips entering the CBD. Those three tolling scenarios resulted in increases in taxi and FHV VMTs within the Manhattan CBD but decreases citywide and regionwide. The other tolling scenarios (A, C, D, E, and G) did not limit tolls for taxis and FHV drivers to once per day and resulted in decreases in taxi/FHV VMT within the CBD as well as citywide and throughout the region.

The adopted toll structure would have a toll rate between that of Tolling Scenarios Modified G and F but would apply the charge to trips within or leaving the CBD as well as those entering. For this reason, the adopted toll structure is predicted to result in a very small decrease in VMT within the CBD (0.3 percent). Comparing the adopted toll structure to the tolling scenarios evaluated in the Final EA that limited the toll on taxi and FHV to once per day (Tolling Scenarios B, F, and Modified G) and did not result in an adverse effect on taxi and FHV drivers, the adopted toll structure would reduce taxi and FHV VMT in New York City by 1.6 percent, which falls between the 1 to 1.7 percent decrease with those Final EA tolling scenarios. Within the 28-county study area (including the CBD), the adopted toll structure would reduce taxi and FHV VMT by 0.7 percent, which is more than Modified Tolling Scenario G, with a 0.5 percent reduction, and less than Tolling Scenario F, with a 1.0 percent reduction. It would therefore better achieve the congestion reduction purpose of the Project with respect to taxis and FHV drivers while maintaining a low reduction in VMT within New York City and the region as a whole, comparable to Modified Tolling Scenario G and Tolling Scenario F.

The adopted toll structure, based on the toll rate for taxis and FHV drivers and the average number of trips per day for those vehicles, is consistent with the Project Sponsors' commitment to toll taxis and FHV drivers no more than once per day. The smaller per-trip charge ensures that the passenger is responsible for the cost of the toll and the drivers do not bear the burden of the cost. The adopted toll structure would limit the reduction in demand for taxi and FHV drivers in the Manhattan CBD relative to the No Action, resulting in only a 0.3 percent reduction in taxi and FHV VMT (-904 VMT) within the Manhattan CBD. With the adopted toll structure, the slight reduction in VMT would maintain income for taxi and FHV drivers close to existing levels without increasing VMT within the CBD. Increased VMT would add to the congestion in the CBD, in contrast to the purpose and need of this Project. The conclusions of the Final EA of no adverse effect on the taxi and FHV industry and no disproportionately high and adverse effect on taxi and FHV drivers remain valid.

For additional discussion on the effects of the adopted toll structure on taxi and FHV drivers, see the discussion in the reevaluation of environmental justice.

**Table 6.3 - Comparison of Toll Policy for Taxis and FHV, Final EA and Adopted Toll Structure**

TOLL POLICY	FINAL EA TOLLING SCENARIOS								ADOPTED TOLL STRUCTURE
	A	B	C	D	E	F	G	Modified G	
Taxi Toll Policy	All Entries	Once per Day	Exempt	All Entries	Exempt	Once per Day	All Entries	Once per Day	\$1.25 per trip toll on trips to, within, or from the CBD*
High-Volume FHV Toll Policy			Up to 3 Times Daily		Up to 3 Times Daily				\$2.50 per trip toll on trips to, within, or from the CBD*
Peak Toll Rate	\$9	\$10	\$14	\$19	\$23	\$23	\$12	\$12	\$15

Note: \* The per-trip tolls for taxis and FHV in the adopted toll structure would be equivalent to the auto peak rate of \$15 (based on NYC Taxi and Limousine Commission analysis of trips made by TLC-licensed vehicles in May 2023: for taxis the average number of trips with passengers to/from/within the CBD is 12, and for FHV it is 6).

**Table 6.4 - Predicted VMT Changes for Taxis/FHVs (vs. No Action) (2023), Final EA and Adopted Toll Structure\***

LOCATION	FINAL EA TOLLING SCENARIOS								ADOPTED TOLL STRUCTURE
	A	B	C	D	E	F	G	Modified G	
Manhattan CBD	-21,498 (-6.6%)	+15,020 (+4.6%)	-11,371 (-3.5%)	-54,476 (-16.8%)	-25,621 (-7.9%)	+4,962 (+1.5%)	-27,757 (-8.6%)	+10,203 (+3.1%)	-904 (-0.3%)
New York City	-128,847 (-5.1%)	-29,731 (-1.2%)	-84,406 (-3.4%)	-219,068 (-8.8%)	-130,412 (-5.2%)	-25,521 (-1.0%)	-147,687 (-5.9%)	-43,481 (-1.7%)	-40,040 (-1.6%)
28-County Study Area	-126,993 (-2.9%)	-14,028 (-0.3%)	-73,413 (-1.7%)	-217,477 (-5.0%)	-116,065 (-2.7%)	-4,888 (-1.0%)	-137,815 (-3.2%)	-23,213 (-0.5%)	-30,963 (-0.7%)

Notes: \* See Final EA Table 6-30, pg. 6-63, Modified Tolling Scenario G discussed in Chapter 17 has been added.  
Final EA tolling scenarios that limited daily tolling for taxis and FHV to no more than once per day (Tolling Scenarios B, F, and Modified G) are shown with shading.

## Movement of Goods and Services and Related Effects on Small Businesses

The Final EA included an assessment of the CBD Tolling Alternative's potential effects on movement of goods and services, including how the cost of the new toll might affect small businesses. While the new toll would increase the cost for some shippers, it would decrease it for others due to travel time savings, the potential for reduced costs associated with parking tickets, and other potential cost savings. Any cost increase would be distributed among multiple businesses because shippers typically serve multiple businesses on a journey. This is consistent with results observed in Singapore, London, and Stockholm.

The Final EA concluded that the Project would not result in adverse effects on business activity in the CBD, small businesses, or the cost of goods and services. As a Project enhancement, the Project Sponsors committed to establishing a Small Business Working Group. In addition, they committed to ensuring the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m., thus offering a lower-cost option for off-peak truck deliveries. With the adopted toll structure, the overnight toll rate for trucks and other vehicles is 75 percent lower than the

peak/off peak toll, at \$6/\$9 and \$3.75 respectively. The overnight hours have been extended from those evaluated in the Final EA, from 9:00 p.m. to 5:00 a.m. on weekdays and 9:00 p.m. to 9:00 a.m. on weekends.

With the adopted toll structure, toll costs for trucks (\$24 for small trucks and \$36 for large trucks during the peak period) are within the range evaluated in the Final EA (\$12 to \$65 for small trucks and \$12 to \$82 for large trucks during the peak period) and the conclusions of the Final EA remain valid (see **Table 6.5**). The Project Sponsors commit to the enhancements described in the Final EA and FONSI. The Small Business Working Group held its first meeting on January 22, 2024. In addition, the overnight toll rates in the adopted toll structure were reduced beyond the commitment made in the Final EA for a longer time period (the adopted toll structure includes overnight period toll rates that are 75 percent lower than the respective peak toll rates from 9:00 p.m. to 5:00 a.m. on weekdays and 9:00 p.m. to 9:00 a.m. weekends).

**Table 6.5 - Modified Final EA Table 6-31. Truck Treatment by Tolling Scenario – with the Adopted Toll Structure Added**

PARAMETER	FINAL EA TOLLING SCENARIOS							ADOPTED TOLL STRUCTURE
	A	B	C	D	E	F	G	
Potential Crossing Credits								
Credit Toward the CBD Toll for Tolls Paid at Tunnels to the CBD	No	No	Yes – Low	Yes – High	Yes – High	Yes – High	No	Yes – Low
Credit Toward the CBD Toll for Tolls Paid at Bridges to Manhattan	No	No	No	No	No	Yes – High	No	No
Potential Exemptions and Limits (Caps) on Number of Tolls per Day								
Small and large trucks	No cap	Twice per day	No cap	No cap	No cap	Once per day	No cap	No cap
Approximate Toll Rate (Small Truck / Large Truck) *								
Peak	\$18 / \$28	\$20 / \$30	\$28 / \$42	\$38 / \$57	\$46 / \$69	\$65 / \$82	\$12 / \$12	\$24 / \$36
Off Peak	\$14 / \$21	\$15 / \$23	\$21 / \$32	\$29 / \$43	\$35 / \$52	\$49 / \$62	\$9 / \$9	
Overnight	\$9 / \$14	\$10 / \$15	\$14 / \$21	\$19 / \$29	\$23 / \$35	\$33 / \$41	\$7 / \$7	\$6 / \$9

\* Toll rates are using E-ZPass and are rounded. For all tolling scenarios, different rates would apply for vehicles not using E-ZPass.

### Neighborhood-Level Effects Near the 60th Street CBD Boundary

The Final EA included an assessment of the potential reductions in parking demand to the area within the CBD but close to the boundary. The analysis considered whether changes in consumer demand could alter underlying real estate market forces at the neighborhood level, specifically focusing on off-street parking uses and demand. It concluded that reductions in the number of daily vehicle journeys (i.e., round trips) to the CBD would result in decreases in parking demand just south of the 60th Street CBD boundary that could jeopardize the viability of one or more parking facilities in that area. The potential closure of parking garages in that area would not create a climate of disinvestment that could lead to adverse effects on neighborhood character. With the adopted toll structure, the predicted reduction in the number of daily vehicles (1,138) would be within the range evaluated in the Final EA (728 to 1,841) (see **Table 6.6**), and the conclusions of the Final EA remain valid.

The MTA Reform and Traffic Mobility Act states that the City of New York must monitor the effects of the Project on parking within and around the Manhattan CBD, and a report must be completed 18 months after the Project commences. A parking study is being led by NYCDOT and work collecting pre-implementation baseline data is under way.

**Table 6.7** presents information from the Final EA Table ES-5 summarizing the conclusions related to economic conditions, now modified to include the adopted toll structure.

***Table 6.6 - Predicted Reductions in Daily Auto Journeys Between 55th and 60th Streets in the CBD (2023), Final EA and Adopted Toll Structure***

REDUCTION	FINAL EA TOLLING SCENARIOS							ADOPTED TOLL STRUCTURE
	A	B	C	D	E	F	G	
Change in daily auto journeys to CBD vs. No Action Alternative*	-20,742 (-5%)	-16,173 (-4%)	-25,559 (-7%)	-38,744 (-10%)	-40,906 (-11%)	-31,784 (-8%)	-23,056 (-6%)	-25,297 (-7%)
Potential reduction in daily auto journeys with destinations in area generally between 55th and 60th Streets vs. No Action Alternative (4.5% of total)	-933 (-5%)	-728 (-4%)	-1,150 (-7%)	-1,743 (-10%)	-1,841 (-11%)	-1,430 (-8%)	-1,038 (-6%)	-1,138 (-7%)

\* See Final EA Table 6-34, pg. 6-80.

## FINDINGS

To consider the effect of the adopted toll structure on economic conditions, the Project Sponsors reviewed the parameters of the toll structure and BPM results for the adopted toll structure in comparison to results evaluated in the Final EA with respect to factors that affect economic conditions, such as movement of workforce, non-work-related trips, and effects on the taxi and FHV industry. The adopted toll structure would result in a small reduction in daily VMT for taxis and FHVs within the Manhattan CBD (a reduction of 0.3 percent), whereas the tolling scenarios evaluated in the Final EA that were found to have no adverse effect on taxi and FHV drivers increased VMT for taxis and FHVs in the CBD. However, the overall reduction of VMT within New York City and the region is within the range evaluated in the Final EA. The slight reduction in VMT within the CBD is not large enough to jeopardize employment of taxi and FHV drivers and, because the overall reduction is within the range evaluated in the Final EA/FONSI, the effects are not adverse. As presented earlier, the toll rates and other parameters fall within the range evaluated in the Final EA. In addition, BPM results for the adopted toll structure for factors affecting economic conditions also fall within the range evaluated in the Final EA. Consequently, the conclusions of the Final EA remain valid. The Project Sponsors will implement the enhancement commitments described in the Final EA related to small businesses, and reduced overnight toll rates for trucks and all other vehicles.



Table 6.7 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
6 – Economic Conditions	Benefits	Regional economic benefits	28-county study area	Narrative	Economic benefit through congestion relief in terms of travel-time savings and travel-time reliability improvements, which would increase productivity and utility, as well as safety improvements and reduced vehicle operating costs associated with reductions in congestion.							No	No mitigation needed. Beneficial effects	Same as Final EA	No	No mitigation needed. Beneficial effects
	Economic Effects of Toll Costs	Cost of new toll for workers and businesses in the CBD that rely on vehicles	Manhattan CBD	Narrative	No adverse effects to any particular industry or occupational category in the Manhattan CBD. Given the high level of transit access in the CBD and high percentage of transit share, the toll would affect only a small percentage of the overall workforce. This would not adversely affect operations of businesses in the Manhattan CBD or the viability of any business types, including the taxi/FHV industry.							No	No mitigation needed. No adverse effects  <b>Enhancements</b> The Project Sponsors commit to establishing a Small Business Working Group (SBWG) that will meet 6 months prior and 6 months after Project implementation, and annually thereafter, to solicit ongoing input on whether and how businesses are being affected.  As part of mitigation for other topics, TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final CBD toll structure; this will also benefit some workers and businesses.	Same as Final EA	No	No mitigation needed. No adverse effects  The Project Sponsors will implement the Enhancements described in the Final EA.
	Price of Goods	Cost of new toll would not result in changes in the cost of most consumer goods	Manhattan CBD	Narrative	Not anticipated to result in meaningful change in cost for most consumer goods. Any cost increase associated with the new toll in the CBD Tolling Alternative that would be passed along to receiving businesses would be distributed among several customers per toll charge (since trucks make multiple deliveries) especially for businesses, including small businesses and micro-businesses, receiving smaller deliveries. This would minimize the cost to any individual business. Some commodity sectors (construction materials, electronics, beverages) are more prone to increases due to less competition within delivery market.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects
	Taxi and FHV Industry*	Depending on the tolling scenario, the toll could reduce taxi and FHV revenues due to a reduction in taxi/FHV VMT with passengers within the CBD. While this could adversely affect individual drivers (see “Environmental Justice”), the industry would remain viable overall.	28-county study area	Net change in daily taxi/FHV VMT regionwide	-126,993 (-2.9%)	-14,028 (-0.3%)	-73,413 (-1.7%)	-217,477 (-5.0%)	-116,065 (-2.7%)	-4,888 (-1.0%)	-137,815 (-3.2%)	No	No mitigation needed. No adverse effects (see “Environmental Justice” for mitigation related to effects on taxi and FHV drivers).	-30,963 (-0.7%)	No	No mitigation needed. No adverse effects
				Net change in daily taxi/FHV VMT in the CBD	-21,498 (-6.6%)	+15,020 (+4.6%)	-11,371 (-3.5%)	-54,476 (-16.8%)	-25,621 (-7.9%)	+4,962 (+1.5%)	-27,757 (-8.6%)			-904 (-0.3%)		
	Local Economic Effects	Changes in parking demand near the 60th Street CBD boundary	Area near 60th Street Manhattan CBD boundary	Narrative	Changes in parking demand near the 60th Street Manhattan CBD boundary (including increases just north of 60th Street and decreases just to the south) could jeopardize the viability of one or more parking facilities in the area south of 60th Street but would not create a climate of disinvestment that could lead to adverse effects on neighborhood character.							No	No mitigation needed. No adverse effects	Same as Final EA	No	No mitigation needed. No adverse effects

Note:

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The Final EA provides information on the types of vehicles licensed by the New York City Taxi and Limousine Commission (TLC) in Chapter 6, “Economic Conditions,” Section 6.3.2.6, on page 6-32. These include yellow cabs, for which TLC has issued medallions; green cabs, which are street-hail livery cabs that begin their trips outside the core service area of Manhattan; and FHV’s, which provide pre-arranged service. Vehicles licensed as app-based, or high-volume, FHV’s operate from bases that dispatch more than 10,000 trips a day. (<https://www.nyc.gov/site/tlc/businesses/high-volume-for-hire-services.page>). Currently there are two TLC-licensed high-volume FHV’s: Lyft and Uber. In this reevaluation document and the Final EA, the term “taxi” is used to refer to yellow cabs, green cabs, and FHV’s that are not high-volume FHV’s and the term “FHV” refers to app-based, high-volume FHV’s (i.e., Lyft and Uber)

## Other Analyses: Parks and Recreational Resources (EA Chapter 7), Historic and Cultural Resources (EA Chapter 8), Visual Resources (EA Chapter 9)

Chapters 7, 8, and 9 of the Final EA explored the effects on three analysis areas—parks and recreational resources, historic and cultural resources, and visual resources, respectively—from the installation of the tolling infrastructure and tolling system equipment that would be used for the CBD Tolling Program. Those chapters of the Final EA concluded the following:

- **Parks and recreational resources:** The CBD Tolling Alternative would not result in adverse effects on parks and recreational resources. Except for Central Park, the CBD Tolling Alternative would not place tolling infrastructure or tolling system equipment within mapped parkland. The CBD Tolling Alternative would have a *de minimis* impact on Central Park and the High Line (see also the discussion of the Final Section 4(f) Evaluation in section 19 of this reevaluation).
- **Historic and cultural resources:** The Project would not result in any direct or indirect effects on historic properties that would alter the characteristics of a historic property that qualify it for inclusion in the National Register of Historic Places, and the Project would have No Adverse Effect on historic and cultural resources.
- **Visual resources:** The visual changes introduced by the CBD Tolling Alternative would be minimal in the context of the urban landscape and would not result in adverse effects on visual quality as perceived by viewers. Therefore, the CBD Tolling Alternative would have a neutral effect on viewer groups.

The adopted toll structure would use the same tolling system equipment and infrastructure described and evaluated in the Final EA. Construction for the Project began in July 2023. Construction of tolling infrastructure and tolling system equipment is largely complete. Power and communications are nearing completion and testing is under way. With the same infrastructure and equipment and construction activities as evaluated in the Final EA, the conclusions of the Final EA for these analysis areas remain valid and no further analysis is needed. **Tables 7.1, 8.1, and 9.1** present information from the Final EA Table ES-5 summarizing the conclusions related to these topics, now modified to include the adopted toll structure.

### FINDINGS

The Final EA considered the effects from installation of tolling infrastructure and tolling system equipment related to parks and recreational resources, historic and cultural resources and visual resources. The adopted toll structure would have the same construction activities and the same permanent tolling infrastructure and tolling system equipment described and evaluated in the Final EA. The effects of the adopted toll structure are the same as with all of the tolling scenarios evaluated in the Final EA/FONSI. Consequently, for these areas, the conclusions of the Final EA remain valid, and no additional mitigation measures are needed. The Project Sponsors will implement the mitigation commitments described in the Final EA.

Table 7.1 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
7 – Parks and Recreational Resources		New tolling infrastructure, tolling system equipment, and signage in the southern portion of Central Park	Manhattan CBD	Narrative	The Project would replace four existing streetlight poles at three detection locations in Central Park near 59th Street and on two adjacent sidewalks outside the park’s wall. These poles would be in the same locations as existing poles and would not reduce the amount of park space or affect the features and activities of the park. The Project would also place tolling infrastructure beneath the structure of the High Line, outside the park area atop the High Line structure. Following consideration of public input received during the public comment period, FHWA concluded that the CBD Tolling Alternative would have a <i>de minimis</i> impact on Central Park and the High Line.							No	No mitigation needed. Refer to <b>Chapter 7, “Parks and Recreational Resources,”</b> for a listing of measures to avoid adverse effects to parks.	Same as Final EA. No change proposed to new tolling infrastructure, tolling system equipment, or signage.	No	No mitigation needed. The Project Sponsors will implement measures described in the Final EA.

Table 8.1 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
8 – Historic and Cultural Resources		New tolling infrastructure and tolling system equipment on or near historic properties	45 historic properties within the Project’s Area of Potential Effects (APE)	Narrative	Based on a review of the Project in accordance with Section 106 of the National Historic Preservation Act, FHWA has determined that the Project would have No Adverse Effect on historic properties and the State Historic Preservation Office has concurred.							No	No mitigation needed. Refer to <b>Chapter 8, “Historic and Cultural Resources,”</b> for a listing of measures to avoid adverse effects to historic properties.	Same as Final EA. No change proposed to new tolling infrastructure, tolling system equipment, or signage.	No	No mitigation needed. The Project Sponsors will implement the measures described in the Final EA.

Table 9.1 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
9 – Visual Resources		Changes in visual environment resulting from new tolling infrastructure and tolling system equipment	Area of visual effect	Narrative	Infrastructure and equipment would be similar in form to streetlight poles, sign poles, or similar structures already in use throughout New York City. Cameras included in the array of tolling system equipment would use infrared illumination at night to allow images of license plates to be collected without any need for visible light. The Project would have a neutral effect on viewer groups and no adverse effect on visual resources							No	No mitigation needed. o adverse effects	Same as Final EA. No change proposed to new tolling infrastructure, tolling system equipment, or signage.	No	No mitigation needed. No adverse effects.

# 10 Air Quality

Chapter 10 of the Final EA presented the assessment of the CBD Tolling Alternative's effects on air quality, air pollution, and greenhouse gas (GHG) emissions. The Final EA evaluated regional "criteria" pollutants (i.e., pollutants for which National Ambient Air Quality Standards [NAAQS] apply), mobile source air toxic (MSAT) and GHG emissions, as well as potential effects at local intersections and highway segments. This section compares the air quality effects of the adopted toll structure to those predicted in the Final EA. The Final EA used Tolling Scenario A as the representative scenario for the mesoscale analysis because it would result in the smallest reduction of VMT. This allows FHWA to assume that a scenario that reduces VMT more than Tolling Scenario A would result in lower overall air quality emissions. Additional information is provided in **Appendix 10**.

## METHODOLOGY

### Final EA Methodology

#### *Mesoscale Analysis*

1. Mesoscale analyses of criteria air pollutants, MSATs, and GHGs were conducted for a 12-county study area (see Final EA page 10-11). It included the 10-county area under the purview of NYMTC, which is the Metropolitan Planning Organization (MPO) for New York City, as well as the two counties in New Jersey with the greatest potential changes in VMT due to the Project (greatest increase and decrease). No Connecticut counties were analyzed because they were predicted to see decreases in VMT. The 12-county study area included the following:
  - New York City – Bronx, Kings (Brooklyn), New York (Manhattan), Queens, Richmond (Staten Island)
  - Long Island – Nassau, Suffolk
  - New York North of New York City – Putnam, Rockland, Westchester
  - New Jersey – Bergen, Hudson.
2. The version of the U.S. Environmental Protection Agency (USEPA) emissions model current at the time the regional analysis for the EA was begun, MOVES2014b, was used to estimate the mobile source emission factors for the mesoscale, MSAT, and GHG analyses.
3. Final EA Tolling Scenario A was analyzed, because it had the smallest reduction of VMT compared to the No Action Alternative and would therefore have the lowest beneficial effect on regional air quality.

4. For the No Action Alternative and Tolling Scenario A, MOVES was run using post-processed VMT<sup>5</sup>, speeds, and vehicle mix, as well as the latest site-specific input data from NYSDEC and the North Jersey Transportation Planning Authority (NJTPA), which is the MPO for the New Jersey counties in the study area.

### ***Microscale Analysis***

1. Identified the intersections for analysis from the traffic analysis presented in Final EA Subchapter 4B, “Highways and Local Intersections.” This included 102 intersections in a total of 15 different study areas.
2. Conducted screening analysis for pollutants of concern on a localized (microscale) level: carbon monoxide (CO), particulate matter (PM)<sub>2.5</sub>, and PM<sub>10</sub>. The screening was conducted using the criteria from NYSDOT’s The Environmental Manual (TEM), Chapter 1.1 and USEPA guidance (see the Final EA, Chapter 10, Sections 10.1.7.3 and 10.1.7.4) (see Final EA Sections 10.1.7.2 and 10.1.7.3).
3. All 102 intersections passed the screening analysis, and no detailed air quality analysis (modeling) was necessary.

### ***Highway Link Analysis***

1. Identified highway link locations and tolling scenario for analysis, based on the following:
  - Location with highest total AADT in any tolling scenario
  - Location of community concern, in worst-case scenario
  - Location with highest truck increase in any tolling scenario.
2. Conducted modeling of particulate matter using the regional model current at the time of the highway link analysis, USEPA’s MOVES3 and AERMOD models.

## **Reevaluation Methodology**

### ***Mesoscale Analysis***

1. The analysis was conducted for the same 12-county study area as in the Final EA.
2. USEPA’s current emission model, MOVES3.1, was used to estimate the mobile source emission factors for the mesoscale, MSAT, and GHG analyses in the reevaluation.
3. For the No Action Alternative and the adopted toll structure, MOVES3.1 was run using VMT (direct output from the BPM for the Project’s 2023 analysis year, without post processing), speeds, vehicle mix, as well as the latest site-specific input data from NYSDEC and NJTPA.

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<sup>5</sup> The NYMTC Post Processor software was used for the 10-county NYMTC area for the Final EA/FONSI. Information on post-processing adjustments can be found in NYMTC’s Final Adopted 2023 *Conformity Determination*, pg. 23, at: <https://www.nymtc.org/en-us/Required-Planning-Products/Transportation-Conformity/Transportation-Conformity-Determination-Documents-adopted>.

### ***Microscale Analysis***

1. Using the same information on incremental traffic volumes from the adopted toll structure at the 102 intersections as was used for the traffic analysis reevaluation, conducted screening analysis using the same methodology as the Final EA
2. As in the Final EA, all 102 intersections passed the screening analysis, and no detailed air quality analysis (modeling) was necessary.

### ***Highway Link Analysis***

1. Determined if locations for the adopted toll structure remain the same as the locations evaluated in the Final EA, based on the same factors:
  - Highest total AADT (based on BPM results for adopted toll structure)
  - Community concern
  - Highest truck increase (based on BPM results for adopted toll structure).
2. For the locations evaluated in the Final EA, reviewed whether the applicable criteria (i.e., AADT or truck increments) with the adopted toll structure are higher than those analyzed in the Final EA.
3. For any locations identified in Step 1 that are different than those studied in the Final EA, or any Final EA locations where the increase in traffic was greater than that analyzed in the EA, conducted modeling of PM using USEPA's MOVES3.1 and AERMOD models.

The modeling approach for the reevaluation and models used for the Final EA are summarized in **Table 10.1** below.



**Table 10.1 - Summary of Models Used for Final EA and Reevaluation Methodology**

TOPIC	LOCATION IN FINAL EA, CHAPTER 10, "AIR QUALITY"	MODEL(S) USED IN FINAL EA	MODELING APPROACH FOR REEVALUATION
<b>Mesoscale Analysis</b>	<u>Methodology</u> – Section 10.1.7.1, page 10-10 <u>Environmental Consequences</u> – Section 10.3.2.1, page 10-21	<ul style="list-style-type: none"> <li>▪ <b>MOVES2014b</b> (current version at time of analysis – no longer being updated or supported for use)</li> <li>▪ VMT from NYMTC's post-processor (in coordination with NYMTC and the ICG, this step was taken to show that the Project would be consistent with NYMTC's conformity analysis because at the time the analysis began, the Project was not yet on the conforming plan and Transportation Improvement Plan [TIP])</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>MOVES3.1</b> (latest update to MOVES3 – <a href="https://www.epa.gov/moves/moves3-update-log">https://www.epa.gov/moves/moves3-update-log</a>)</li> <li>▪ VMT direct from BPM (used Final EA network, VMT post-processing not required because the Project was added to the conforming plan and TIP and included in NYMTC conformity determination in 2022)</li> </ul>
<b>Microscale Analysis</b>	<u>Methodology</u> – 10.1.7.2, page 10-14 <u>Environmental Consequences</u> – Section 10.3.2.2, page 10-42	<ul style="list-style-type: none"> <li>▪ Screening only; no modeling required</li> </ul>	<ul style="list-style-type: none"> <li>▪ Screening only; no modeling required</li> </ul>
<b>Highway Link Analysis</b>	<u>Methodology</u> – 10.1.7.5, page 10-16 <u>Environmental Consequences</u> – Section 10.3.2.3, page 10-46	<ul style="list-style-type: none"> <li>▪ <b>MOVES3</b> (current version at time of analysis)</li> <li>▪ <b>AERMOD version 21112</b> (current version at time of analysis – no longer being updated or supported for use)</li> <li>▪ VMT direct from BPM</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>MOVES3.1</b> (latest update to MOVES3 - <a href="https://www.epa.gov/moves/moves3-update-log">https://www.epa.gov/moves/moves3-update-log</a>)</li> <li>▪ <b>AERMOD</b> version 23132 (current version)</li> <li>▪ VMT direct from BPM (Final EA Network)</li> </ul>

## ANALYSIS AND RESULTS

### Mesoscale Analysis

The Final EA concluded that the CBD Tolling Alternative would benefit air quality by reducing emissions related to criteria pollutants, MSATs, and GHGs overall in the 12-county study area.

For the reevaluation, the mesoscale analysis shows that the adopted toll structure would reduce emissions related to the criteria pollutants, MSATs, and GHG the same as or more than Tolling Scenario A. The adopted toll structure would benefit regional air quality by reducing criteria pollutants, MSATs, and GHG overall in the 12-county study area. **Tables 10.2 through 10.4** present the results of the mesoscale air quality analysis for the adopted toll structure in comparison to the results for Tolling Scenario A from the Final EA. Additional information is provided in **Appendix 10**. Based on these analyses, the conclusions in the Final EA for both 2023 and 2045 remain valid.

To compare values between the Final EA and the reevaluation, the comparison is made between the change from the No Action Alternative and the tolling scenario or adopted toll structure (percent difference/change) due to the use of NYMTC's post processor for the Final EA.



Furthermore, the Project continues to be included in NYMTC's regional emissions analysis and the currently conforming Plan and TIP. The most recent conformity determination on the Plan and TIP was made by FHWA and the Federal Transit Administration on January 4, 2024.

### ***Mesoscale Analysis by County – Criteria Pollutants***

In the Final EA/FONSI, Tolling Scenario A was used for the county-level emissions analysis for criteria pollutants, because it reduced VMT the least and would represent the highest level of emissions of all the scenarios. In comparing the adopted toll structure to the results in the Final EA/FONSI, the following conclusions are noted (see **Table 10.3**, which provides results for Tolling Scenario A and the adopted toll structure by county and pollutant).

On a county-level basis, the Final EA saw the following for criteria pollutants:

- The Manhattan CBD along with New York (Manhattan), Queens, Kings (Brooklyn), Rockland, and Hudson Counties saw decreases in all pollutants with the Project.
- Suffolk, Westchester, and Putnam Counties saw mixed results, with some pollutants increasing slightly and some pollutant burdens decreasing with the Project.
- The Bronx, Richmond (Staten Island), Nassau, and Bergen Counties saw increases in all pollutants with the Project.

For the adopted toll structure, the results for criteria pollutants are as follows:

- The Manhattan CBD along with New York (Manhattan), Nassau, Westchester, Rockland, and Hudson Counties have estimated decreases in all pollutants with the Project.
- Queens, Bronx, Kings (Brooklyn) and Putnam Counties have mixed results, with some pollutants increasing slightly and some pollutant burdens decreasing with the Project.
- Richmond (Staten Island), Suffolk, and Bergen Counties have estimated increases in all pollutants with the Project.

### ***Mesoscale Analysis by County - MSATs***

In Final EA/FONSI, Tolling Scenario A was used for the county-level emissions analysis for MSAT emissions, because it reduced VMT the least and would represent the highest level of emissions of all the scenarios. In comparing the adopted toll structure to the results in the Final EA/FONSI, the following conclusions are noted (see **Table 10.4** below, which provides data for Tolling Scenario A and the adopted toll structure by county and pollutant).

On a county-level basis, the Final EA saw the following for MSATs:

- The Manhattan CBD along with New York (Manhattan), Queens, Kings (Brooklyn), Westchester, Rockland, and Hudson Counties saw decreases in all MSATs with the Project.
- The Bronx, Richmond (Staten Island), Nassau, Suffolk, Putnam, and Bergen Counties estimate increases in all MSATs with the Project.

For the adopted toll structure, the results for MSATs are as follows:

- The Manhattan CBD along with New York (Manhattan), Nassau, Westchester, Rockland, Putnam and Hudson Counties have estimated decreases in all pollutants with the Project.
- Queens, Bronx, and Kings (Brooklyn) have mixed results, with some pollutants increasing slightly and some pollutant burdens decreasing with the Project.
- Richmond (Staten Island), Suffolk, and Bergen Counties have estimated increases in all pollutants with the Project.

**Table 10.2 - Final EA Table 10-7. Mesoscale Emission Burdens, CBD Tolling Alternative (Tolling Scenario A, tons/year) – With the Adopted Toll Structure (Analysis Year 2023)**

POLLUTANT	FINAL EA			ADOPTED TOLL STRUCTURE		
	No Action Alternative	CBD Tolling Alternative (Tolling Scenario A)	% Difference	No Action Alternative	Adopted Toll Structure	% Difference
Daily Vehicle-Miles Traveled (miles/day) – BPM Output for 12-County Study Area	146,956,932	146,556,877	-0.3%	146,956,932	146,387,802	-0.4%
Daily Vehicle-Miles Traveled (miles/day) – Post Processed for 12-County Study Area	182,736,632	182,143,856	-0.3%	N/A	N/A	N/A
Volatile Organic Compounds (VOC)	17,698	17,667	-0.2%	6,567	6,541	-0.4%
Nitrogen Oxides (NO <sub>x</sub> )	23,956	23,864	-0.4%	12,437	12,378	-0.5%
Carbon Monoxide (CO)	227,726	227,074	-0.3%	93,881	93,220	-0.7%
Particulate Matter (PM <sub>10</sub> )	5,884	5,828	-1.0%	2,878	2,849	-1.0%
Particulate Matter (PM <sub>2.5</sub> )	1,452	1,441	-0.7%	604	599	-0.8%
Carbon Dioxide Equivalents (CO <sub>2</sub> e)	32,445,206	32,236,481	-0.6%	17,461,889	17,360,966	-0.6%

Note: For the Final EA, post processed vehicle-miles traveled were used for analysis. They were generated off of the NYMTC BPM outputs using the NYMTC Post Processor software. They are higher than the NYMTC BPM outputs due to a series of seasonal adjustments. NYMTC's Transportation Conformity Determination includes details on these adjustments: <https://www.nymtc.org/Required-Planning-Products/Transportation-Conformity/Transportation-Conformity-Determination-Documents-adopted>. Post processing is conducted in accordance with NYMTC's procedures to generate maximum potential worst-case conditions for the Plan and TIP conformity analyses only when a Project has not yet been included in the conformity analysis of an adopted Plan and TIP – as was the case at the time the mesoscale analysis was begun for the Final EA. Post processing was not conducted for the adopted toll structure in the reevaluation, as the Project is now part of the conforming Plan and TIP for which NYMTC's 2022 conformity analyses were completed and subsequent conformity analyses.

**Table 10.3 - Final EA Table 10-8. Mesoscale Emission Burden Percentage Changes by County, CBD Tolling Alternative (Tolling Scenario A, Analysis Year 2023) – With the Adopted Toll Structure Below**

POLLUTANT	FINAL EA TOLLING SCENARIO A – PERCENT CHANGE FROM NO ACTION ALTERNATIVE (FINAL EA NETWORK RUN POST-PROCESSED, ANALYZED IN MOVES2014B)												
	New York		Queens	Bronx	Kings	Richmond	Nassau	Suffolk	Westchester	Rockland	Putnam	Hudson	Bergen
	CBD Only	Entire County											
Daily Vehicle-Miles Traveled	-11.56%	-5.88%	-0.36%	0.15%	-0.74%	1.73%	0.03%	-0.03%	-0.22%	-0.17%	0.28%	-2.24%	0.88%
Volatile Organic Compounds (VOC)	-4.96%	-3.29%	-0.32%	0.03%	-0.32%	0.44%	0.05%	0.02%	0.21%	-0.05%	-0.03%	-0.66%	0.20%
Nitrogen Oxides (NO <sub>x</sub> )	-9.54%	-5.96%	-0.56%	0.09%	-0.68%	1.26%	0.09%	0.00%	-0.25%	-0.12%	0.37%	-1.85%	0.63%
Carbon Monoxide (CO)	-7.58%	-4.58%	-0.37%	0.02%	-0.51%	0.89%	0.03%	-0.03%	-0.13%	-0.05%	0.00%	-1.02%	0.49%
Particulate Matter (PM <sub>10</sub> )	-12.16%	-9.75%	-1.23%	0.30%	-1.00%	2.12%	0.19%	0.11%	-0.32%	-0.36%	0.31%	-3.86%	0.74%
Particulate Matter (PM <sub>2.5</sub> )	-11.37%	-8.52%	-0.99%	0.20%	-0.90%	1.80%	0.14%	0.06%	-0.23%	-0.25%	0.26%	-3.00%	0.69%
Carbon Dioxide Equivalents (CO <sub>2</sub> e)	-11.48%	-7.92%	-0.84%	0.15%	-0.88%	1.76%	0.15%	0.03%	-0.40%	-0.23%	0.17%	-3.03%	0.80%

Source: WSP, 2022.

POLLUTANT	ADOPTED TOLL STRUCTURE – PERCENT CHANGE FROM NO ACTION ALTERNATIVE (FINAL EA NETWORK RUN, ANALYZED IN MOVES3.1)												
	New York		Queens	Bronx	Kings	Richmond	Nassau	Suffolk	Westchester	Rockland	Putnam	Hudson	Bergen
	CBD Only	Entire County											
Daily Vehicle-Miles Traveled	-8.90%	-5.47%	-0.68%	0.15%	-0.61%	2.35%	-0.10%	0.00%	-0.59%	-0.35%	-0.06%	-2.23%	1.11%
Volatile Organic Compounds (VOC)	-5.44%	-4.27%	-0.36%	-1.11%	-0.45%	0.94%	-0.05%	0.01%	-0.25%	-0.06%	0.02%	-2.08%	0.45%
Nitrogen Oxides (NO <sub>x</sub> )	-7.41%	-4.85%	0.67%	1.48%	0.03%	2.47%	-0.09%	0.02%	-0.31%	-0.21%	-0.05%	-4.96%	0.92%
Carbon Monoxide (CO)	-10.83%	-6.91%	-0.92%	-0.42%	-0.99%	2.24%	-0.10%	0.01%	-0.60%	-0.32%	0.00%	-3.59%	1.05%
Particulate Matter (PM <sub>10</sub> )	-11.02%	-7.26%	-0.65%	0.94%	-1.08%	2.70%	-0.12%	0.07%	-0.58%	-0.22%	0.16%	-6.34%	0.94%
Particulate Matter (PM <sub>2.5</sub> )	-10.49%	-6.59%	-0.31%	0.95%	-0.73%	2.51%	-0.11%	0.06%	-0.46%	-0.23%	0.06%	-5.39%	1.00%
Carbon Dioxide Equivalents (CO <sub>2</sub> e)	-11.00%	-6.46%	-0.56%	0.34%	-0.75%	2.30%	-0.10%	0.01%	-0.54%	-0.31%	-0.02%	-3.91%	1.06%

Source: WSP, 2024.

Yellow highlights indicate an increase compared to the No Action Alternative.

**Table 10.4 - Final EA Table 10-11. Mobile Source Air Toxics Emission Burden Percentage Changes by County, CBD Tolling Alternative (Tolling Scenario A, Analysis Year 2023) – With the Adopted Toll Structure Below**

POLLUTANT	FINAL EA TOLLING SCENARIO A – PERCENT CHANGE FROM NO ACTION ALTERNATIVE (FINAL EA NETWORK RUN POST-PROCESSED, ANALYZED IN MOVES2014B)												
	New York		Queens	Bronx	Kings	Richmond	Nassau	Suffolk	Westchester	Rockland	Putnam	Hudson	Bergen
	CBD Only	Entire County											
Daily Vehicle-Miles Traveled	-11.56%	-5.88%	-0.36%	0.15%	-0.74%	1.73%	0.03%	-0.03%	-0.22%	-0.17%	0.28%	-2.24%	0.88%
1,3-Butadiene	-11.82%	-9.11%	-1.12%	0.17%	-0.99%	1.96%	0.22%	0.07%	-0.25%	-0.26%	0.30%	-3.93%	0.81%
Acetaldehyde	-11.78%	-9.09%	-1.13%	0.16%	-0.99%	1.95%	0.26%	0.08%	-0.25%	-0.27%	0.30%	-3.96%	0.79%
Acrolein	-11.79%	-9.25%	-1.17%	0.15%	-1.01%	1.98%	0.29%	0.10%	-0.26%	-0.28%	0.29%	-4.05%	0.77%
Benzene	-10.91%	-7.37%	-0.74%	0.05%	-0.82%	1.56%	0.13%	0.01%	-0.19%	-0.17%	0.27%	-2.48%	0.70%
Diesel PM	-11.79%	-8.64%	-0.94%	0.20%	-0.94%	1.99%	0.23%	0.10%	-0.28%	0.00%	0.28%	-3.44%	0.74%
Ethylbenzene	-8.58%	-6.14%	-0.65%	0.07%	-0.63%	1.01%	0.12%	0.03%	-0.11%	-0.12%	0.15%	-1.57%	0.40%
Formaldehyde	-11.78%	-9.18%	-1.15%	0.16%	-1.00%	1.96%	0.29%	0.09%	-0.26%	-0.28%	0.29%	-4.02%	0.77%
Naphthalene	-11.76%	-9.06%	-1.13%	0.14%	-0.99%	1.95%	0.27%	0.08%	-0.25%	-0.27%	0.29%	-3.96%	0.78%
Polycyclic Organic Matter	-11.59%	-8.46%	-0.99%	0.09%	-0.96%	1.84%	0.20%	0.04%	-0.24%	-0.25%	0.30%	-3.62%	0.82%

Source: WSP, 2022.

POLLUTANT	ADOPTED TOLL STRUCTURE – PERCENT CHANGE FROM NO ACTION ALTERNATIVE (FINAL EA NETWORK RUN, ANALYZED IN MOVES3.1)												
	New York		Queens	Bronx	Kings	Richmond	Nassau	Suffolk	Westchester	Rockland	Putnam	Hudson	Bergen
	CBD Only	Entire County											
Daily Vehicle-Miles Traveled	-8.90%	-5.47%	-0.68%	0.15%	-0.61%	2.35%	-0.10%	0.00%	-0.59%	-0.35%	-0.06%	-2.23%	1.11%
1,3-Butadiene	-11.26%	-6.99%	-0.80%	0.33%	-0.93%	2.35%	-0.11%	0.03%	-0.59%	-0.28%	-8.33%	-5.84%	1.01%
Acetaldehyde	-6.76%	-4.80%	0.24%	0.80%	-0.33%	2.39%	-0.10%	0.03%	-0.45%	-0.25%	-6.72%	-8.19%	0.91%
Acrolein	-7.96%	-5.10%	0.24%	1.01%	-0.27%	2.09%	-0.09%	0.02%	-0.39%	-0.25%	-5.90%	-7.10%	0.90%
Benzene	-10.29%	-6.48%	-0.74%	-0.37%	-0.87%	1.72%	-0.09%	0.02%	-0.48%	-0.29%	-8.50%	-4.67%	1.04%
Diesel PM	-8.60%	-4.84%	1.09%	1.22%	0.45%	2.31%	-0.06%	0.06%	-0.23%	-0.17%	-4.43%	-4.89%	1.04%
Ethylbenzene	-6.34%	-4.80%	-0.48%	-0.02%	-0.56%	1.09%	-0.06%	0.02%	-0.29%	-0.27%	-8.62%	-5.71%	0.99%
Formaldehyde	-7.09%	-4.83%	0.12%	0.79%	-0.37%	2.20%	-0.10%	0.02%	-0.45%	-0.27%	-6.48%	-8.50%	0.93%
Naphthalene	-9.13%	-5.61%	-0.26%	0.77%	-0.56%	2.06%	-0.10%	0.02%	-0.48%	-0.28%	-6.86%	-6.99%	0.96%
Polycyclic Organic Matter	-9.43%	-5.68%	-0.24%	0.80%	-0.51%	2.07%	-0.10%	0.02%	-0.46%	-0.27%	-6.69%	-6.40%	0.99%

Source: WSP, 2024.

Yellow highlights indicate an increase compared to the No Action Alternative.

## Microscale Analysis

For both the Final EA and the reevaluation, all 102 local intersections passed the screening analysis. As such, no further analysis was needed. **Table 10.5** illustrates the results of the microscale screening analysis for the Final EA and the adopted toll structure. Additional information is provided in **Appendix 10**.

**Table 10.5 - Final EA Table 10-13. CO and PM<sub>2.5</sub>/PM<sub>10</sub> Microscale Screening Results 2023, CBD Tolling Alternative (Tolling Scenario C and Tolling Scenario D) – With the Adopted Toll Structure Added**

LOCATION	INTERSECTION	FINAL EA		ADOPTED TOLL STRUCTURE	
		CO SCREENING	PM <sub>2.5</sub> /PM <sub>10</sub> SCREENING	CO SCREENING	PM <sub>2.5</sub> /PM <sub>10</sub> SCREENING
Downtown Brooklyn	Flatbush Ave & Tillary St	Passed	Passed	Passed	Passed
	Adams St & Tillary St	Passed	Passed	Passed	Passed
	Old Fulton St & Vine St	Passed	Passed	Passed	Passed
Lincoln Tunnel (Manhattan)	Ninth Ave & West 33 <sup>rd</sup> St	Passed	Passed	Passed	Passed
	Dyer Ave & West 34 <sup>th</sup> St	Passed	Passed	Passed	Passed
	Twelfth Ave & West 34 <sup>th</sup> St	Passed	Passed	Passed	Passed
	Eleventh Ave & West 42 <sup>nd</sup> St	Passed	Passed	Passed	Passed
	Dyer Ave & West 36 <sup>th</sup> St	Passed	Passed	Passed	Passed
	Tenth Ave & West 33 <sup>rd</sup> St	Passed	Passed	Passed	Passed
	Eleventh Ave & West 34 <sup>th</sup> St	Passed	Passed	Passed	Passed
	Tenth Ave & West 41 <sup>st</sup> St	Passed	Passed	Passed	Passed
	Twelfth Ave & West 42 <sup>nd</sup> St	Passed	Passed	Passed	Passed
	Pulaski Bridge/11 <sup>th</sup> St & Jackson Ave	Passed	Passed	Passed	Passed
Long Island City (Queens)	11 <sup>th</sup> St & 48 <sup>th</sup> Ave	Passed	Passed	Passed	Passed
	50 <sup>th</sup> Ave at Vernon Blvd	Passed	Passed	Passed	Passed
	Green St & McGuinness Blvd	Passed	Passed	Passed	Passed
	McGuinness Blvd & Freeman St	Passed	Passed	Passed	Passed
	21 <sup>st</sup> St & 49 <sup>th</sup> Ave	Passed	Passed	Passed	Passed
	11 <sup>th</sup> St & Borden Ave	Passed	Passed	Passed	Passed
	Van Dam St & Queens-Midtown Tunnel Expwy	Passed	Passed	Passed	Passed
	Van Dam St & Borden Ave	Passed	Passed	Passed	Passed
	Jackson Ave/Northern Blvd & Queens Plaza	Passed	Passed	Passed	Passed
	Thomson Ave & Dutch Kills St	Passed	Passed	Passed	Passed
Lower Manhattan (Manhattan)	Thomson Ave & Dutch Kills St	Passed	Passed	Passed	Passed
	21 <sup>st</sup> St & Queens Plaza N	Passed	Passed	Passed	Passed
	Trinity Place & Edgar St	Passed	Passed	Passed	Passed
	Trinity Place & Rector St	Passed	Passed	Passed	Passed
	Hugh L. Carey Tunnel Entrance/Exit & West St	Passed	Passed	Passed	Passed
	Hugh L. Carey Tunnel Exit & West St & West Thames St	Passed	Passed	Passed	Passed
	Chambers St & Centre St	Passed	Passed	Passed	Passed
	Canal & Hudson Sts/Holl& Tunnel On-Ramp	Passed	Passed	Passed	Passed
	Canal St & Holl& Tunnel On-Ramp	Passed	Passed	Passed	Passed

LOCATION	INTERSECTION	FINAL EA		ADOPTED TOLL STRUCTURE	
		CO SCREENING	PM <sub>2.5</sub> /PM <sub>10</sub> SCREENING	CO SCREENING	PM <sub>2.5</sub> /PM <sub>10</sub> SCREENING
	Canal St S & West St	Passed	Passed	Passed	Passed
	West St & Albany St	Passed	Passed	Passed	Passed
	West St & Vesey St	Passed	Passed	Passed	Passed
	West St & Chambers St	Passed	Passed	Passed	Passed
	Canal St/Manhattan Bridge & Bowery	Passed	Passed	Passed	Passed
	Manhattan Bridge & Bowery	Passed	Passed	Passed	Passed
	Sixth Ave & Watts St	Passed	Passed	Passed	Passed
	Canal St & Sixth Ave/Laight St	Passed	Passed	Passed	Passed
New Jersey	14 <sup>th</sup> St/Holl& Tunnel (E-W) & Marin Blvd (N-S)	Passed	Passed	Passed	Passed
	14 <sup>th</sup> St (E-W) & Jersey Ave (N-S)	Passed	Passed	Passed	Passed
	12 <sup>th</sup> St (E-W) & Jersey Ave (N-S)	Passed	Passed	Passed	Passed
	12 <sup>th</sup> St/Holl& Tunnel (E-W) & Marin Blvd (N-S)	Passed	Passed	Passed	Passed
Queens-Midtown Tunnel (Manhattan)	East 37 <sup>th</sup> St & Third Ave	Passed	Passed	Passed	Passed
	East 36 <sup>th</sup> St & Second Ave	Passed	Passed	Passed	Passed
	East 34 <sup>th</sup> St & Third Ave	Passed	Passed	Passed	Passed
	East 35 <sup>th</sup> St & Third Ave	Passed	Passed	Passed	Passed
	East 34 <sup>th</sup> St & Second Ave	Passed	Passed	Passed	Passed
	East 35 <sup>th</sup> St & Second Ave	Passed	Passed	Passed	Passed
Red Hook (Brooklyn)	Hamilton Ave, Clinton St & West 9 <sup>th</sup> St	Passed	Passed	Passed	Passed
	Hamilton Ave (northbound) & West 9 <sup>th</sup> St	Passed	Passed	Passed	Passed
Robert F. Kennedy Bridge (Manhattan, the Bronx, Queens)	East 126 <sup>th</sup> St & Second Ave	Passed	Passed	Passed	Passed
	East 125 <sup>th</sup> St & Second Ave	Passed	Passed	Passed	Passed
	East 134 <sup>th</sup> St & St. Ann's Ave	Passed	Passed	Passed	Passed
	St. Ann's Ave & Bruckner Blvd	Passed	Passed	Passed	Passed
	31 <sup>st</sup> St & Astoria Blvd	Passed	Passed	Passed	Passed
	Hoyt Ave North & 31 <sup>st</sup> St	Passed	Passed	Passed	Passed
	Hoyt Ave South & 31 <sup>st</sup> St	Passed	Passed	Passed	Passed
Upper East Side (Manhattan)	East 60 <sup>th</sup> St & Ed Koch Queensboro Bridge Exit	Passed	Passed	Passed	Passed
	East 60 <sup>th</sup> St & Third Ave	Passed	Passed	Passed	Passed
	East 60 <sup>th</sup> St & York Ave	Passed	Passed	Passed	Passed
	East 59 <sup>th</sup> St & Second Ave	Passed	Passed	Passed	Passed
	East 60 <sup>th</sup> St & Second Ave	Passed	Passed	Passed	Passed
	East 60 <sup>th</sup> St & First Ave	Passed	Passed	Passed	Passed
	East 60 <sup>th</sup> St & Lexington Ave	Passed	Passed	Passed	Passed
	East 60 <sup>th</sup> St & Park Ave (northbound)	Passed	Passed	Passed	Passed



LOCATION	INTERSECTION	FINAL EA		ADOPTED TOLL STRUCTURE	
		CO SCREENING	PM <sub>2.5</sub> /PM <sub>10</sub> SCREENING	CO SCREENING	PM <sub>2.5</sub> /PM <sub>10</sub> SCREENING
	East 60 <sup>th</sup> St & Park Ave (south- & westbound)	Passed	Passed	Passed	Passed
	East 60 <sup>th</sup> St & Madison Ave	Passed	Passed	Passed	Passed
	East 62 <sup>nd</sup> St & Ed Koch Queensboro Bridge Exit	Passed	Passed	Passed	Passed
	East 60 <sup>th</sup> St & Fifth Ave	Passed	Passed	Passed	Passed
	East 63 <sup>rd</sup> St & York Ave	Passed	Passed	Passed	Passed
	East 53 <sup>rd</sup> St & Franklin D. Roosevelt Dr	Passed	Passed	Passed	Passed
	East 61 <sup>st</sup> St & Fifth Ave	Passed	Passed	Passed	Passed
	East 65 <sup>th</sup> St & Fifth Ave	Passed	Passed	Passed	Passed
	East 66 <sup>th</sup> St & Fifth Ave	Passed	Passed	Passed	Passed
	East 79 <sup>th</sup> St & Fifth Ave	Passed	Passed	Passed	Passed
	East 71 <sup>st</sup> St & York Ave	Passed	Passed	Passed	Passed
Upper West Side (Manhattan)	West 72 <sup>nd</sup> St & West End Ave	Passed	Passed	Passed	Passed
	West 61 <sup>st</sup> St & West End Ave	Passed	Passed	Passed	Passed
	West 79 <sup>th</sup> St & Riverside Drive	Passed	Passed	Passed	Passed
	West 56 <sup>th</sup> St & Twelfth Ave	Passed	Passed	Passed	Passed
	West 56 <sup>th</sup> St & West Side Hwy	Passed	Passed	Passed	Passed
	West 55 <sup>th</sup> St & West Side Hwy	Passed	Passed	Passed	Passed
	West 55 <sup>th</sup> St & Twelfth Ave	Passed	Passed	Passed	Passed
	West 55 <sup>th</sup> St & West Side Hwy Arterial	Passed	Passed	Passed	Passed
	West 60 <sup>th</sup> St & Broadway	Passed	Passed	Passed	Passed
	West 60 <sup>th</sup> St & Columbus Ave	Passed	Passed	Passed	Passed
	West 60 <sup>th</sup> St & Amsterdam Ave	Passed	Passed	Passed	Passed
	West 60 <sup>th</sup> St & West End Ave	Passed	Passed	Passed	Passed
	West 61 <sup>st</sup> St & Amsterdam Ave	Passed	Passed	Passed	Passed
	West 61 <sup>st</sup> St & Columbus Ave	Passed	Passed	Passed	Passed
	West 61 <sup>st</sup> St & Broadway	Passed	Passed	Passed	Passed
	West 61 <sup>st</sup> St & Columbus Ave	Passed	Passed	Passed	Passed
	West 81 <sup>st</sup> St & Central Park West	Passed	Passed	Passed	Passed
	West 66 <sup>th</sup> St & Central Park West	Passed	Passed	Passed	Passed
	West 65 <sup>th</sup> St & Central Park West	Passed	Passed	Passed	Passed
West Side Hwy / Rte 9A (Manhattan)	West 24 <sup>th</sup> St & Twelfth Ave	Passed	Passed	Passed	Passed

LOCATION	INTERSECTION	FINAL EA		ADOPTED TOLL STRUCTURE	
		CO SCREENING	PM <sub>2.5</sub> /PM <sub>10</sub> SCREENING	CO SCREENING	PM <sub>2.5</sub> /PM <sub>10</sub> SCREENING
Little Dominican Republic (Manhattan)	West 179 <sup>th</sup> St & Broadway	Passed	Passed	Passed	Passed
	Park Row/Chatham Sq, Worth/Oliver St & Mott St	Passed	Passed	Passed	Passed
Lower East Side (Manhattan)	Chatham Square & East Broadway	Passed	Passed	Passed	Passed
	Chatham Square/Bowery & Division St	Passed	Passed	Passed	Passed

## Highway Link Analysis

In addition to the intersection screening analysis, a highway link screening analysis was conducted for potential CO effects at a location of community concern (FDR Drive at 10th Street); this location passed the screening and, therefore, no further analysis was required.

Based on the screening analyses, it was determined that the Project is not a project of air quality concern as defined in 40 CFR 93.123(b)(1); therefore, no hot-spot analysis for PM<sub>2.5</sub>/PM<sub>10</sub> was required. The Project meets the project-level conformity requirements and would not create any new or worsen any existing violation of the NAAQS or delay timely attainment of any NAAQS or any required interim emission reductions or other milestones. Though all sites analyzed passed the particulate matter screening parameters established for the Project, in recognition of the association of particulate matter and health effects, it was decided to conduct hot-spot analyses on highway links throughout the study area to quantify the Project's impact on localized air quality levels.

Furthermore, through interagency consultation and to address community concerns, particulate matter hot-spot analyses were conducted on highway segments at three locations representing worst-case conditions (largest increases in truck traffic and highest AADT under the Project) and community concerns. According to the analyses, there were no violations of the NAAQS with the Project, and no further analysis is warranted. For the Final EA, highway link analyses for particulate matter (PM) effects were conducted at three sites:

- I-95 west of the George Washington Bridge, Tolling Scenario C – Highest total AADT in any scenario
- Cross Bronx Expressway at Macombs Road, Tolling Scenario B – Community concern
- Robert F. Kennedy (Triborough) Bridge Queens approach, Tolling Scenario E – Highest truck increase in any scenario

At all sites, predicted PM concentrations with the Project would be below the PM<sub>2.5</sub>/PM<sub>10</sub> NAAQS.

For the reevaluation, all highway links were evaluated to determine if those locations analyzed in the Final EA still represent worst-case conditions with the adopted toll structure. The findings are as follows (see also **Appendix 10**):

- **Highest total AADT:** I-95 west of the George Washington Bridge still represents the location with the highest AADT. As shown in **Table 10.6**, With the adopted toll structure, the AADT at this location would be higher than that analyzed in the Final EA (although total and incremental truck volumes would be lower than in the Final EA). Therefore, additional modeling was conducted using MOVES3.1. The modeling showed that the predicted PM concentrations with the adopted toll structure would still be below the applicable NAAQS (see **Table 10.7**). Therefore, the conclusions of the Final EA remain valid.
- **Community concern:** At the Cross Bronx Expressway at Macombs Road location, the AADT and truck volume changes with the adopted toll structure would be below the maximum increment analyzed in the Final EA, where the results were below the NAAQS, and no adverse effect was found. Therefore, no additional modeling was necessary, and the conclusions of the Final EA remain valid.

- **Highest truck increase:** The RFK Bridge Queens approach would still be the location with the largest truck increase. The truck volume changes at the RFK Bridge for the adopted toll structure are all below the maximum increment analyzed in the Final EA, where the results were below the NAAQS, and no adverse effect was found. Therefore, no additional modeling was necessary, and the conclusions of the Final EA remain valid.

**Table 10.6 - Changes in AADT and Trucks (2023), Final EA and Adopted Toll Structure**

LINK #	COUNTY	ROADWAY	NO ACTION		FINAL EA SCENARIO C		ADOPTED TOLL STRUCTURE	
			AADT	Trucks	AADT	Trucks	AADT	Trucks
268133 & 268131	Bergen	I-95 West of the George Washington Bridge	241,327	34,133	249,307	34,862	251,668	34,632
Change from No Action					7,980	729	10,341	499
Percent Change from No Action					3.3%	2.1%	4.3%	1.5%

**Table 10.7 - Changes in Particulate Matter Concentrations (2023), Final EA and Adopted Toll Structure – I-95 West of the George Washington Bridge**

FINAL EA TABLE*	POLLUTANT	FINAL EA		ADOPTED TOLL STRUCTURE		NAAQS (µg/m³)
		No Action Alternative – MOVES3 (µg/m³)	Final EA Tolling Scenario C (µg/m³)	No Action Alternative – MOVES3.1 (µg/m³)	Adopted Toll Structure (µg/m³)	
Table 1	PM <sub>10</sub>	105	107	88	89	150
Table 2	PM <sub>2.5</sub> 24-hour	29.5	29.7	27.8	28.0	35.0
Table 3	PM <sub>2.5</sub> Annual	11.1	11.2	10.8	10.9	12.0

\* See Final EA Appendix 10D, page 10-52.

Note: No Action pollutant concentrations are lower than in the Final EA because MOVES 3.1 (latest version) was used with the latest input files (vehicle age distribution, vehicle mix) and meteorological data in AERMOD for the reevaluation. Incremental changes from the No Action under the adopted toll structure are the same or less than those for Final EA Tolling Scenario C.

**Table 10.8** presents information from the Final EA Table ES-5 summarizing the conclusions related to air quality, now modified to include the adopted toll structure.

## FINDINGS

The Final EA evaluated the CBD Tolling Alternative's effects on regional air pollutants and at local intersections and highway segments using screening-level analyses and detailed air quality modeling, as appropriate. Using BPM results for the adopted toll structure, the Project Sponsors applied the same methodology for the reevaluation of air quality.

## Mesoscale Analysis

Collectively, the adopted toll structure reduces emissions in the 12-county study area for criteria pollutants, MSATs, and GHGs by the same or more than the amounts identified in the Final EA with Tolling Scenario A.

At a county level, some pollutants have slight increases with the adopted toll structure relative to Tolling Scenario A. As shown in **Table 10.3** (criteria pollutants) and **Table 10.4** (MSATs), there are fewer predicted increases under the adopted toll structure than under Tolling Scenario A. All of the changes between the adopted toll structure and Tolling Scenario A by county are small.

### ***Mesoscale Analysis by County – Criteria Pollutants***

The adopted toll structure shows some higher increases of nitrogen oxides in Queens and Bronx Counties, of 0.67 percent and 1.48 percent, respectively, compared to a decrease of 0.56 percent in Queens County and 0.09 percent increase in Bronx County with Tolling Scenario A. However, these increases are small. Under the adopted toll structure, Nassau County shows a reduction, whereas under Tolling Scenario A, all the criteria pollutants would increase.

The greatest increases in criteria pollutants for the adopted toll structure are in Richmond County, ranging from 0.94 percent to 2.70 percent, and Bergen County, ranging from 0.45 percent to 1.11 percent. The overall increase of pollutants in these counties is small and the difference between Tolling Scenario A and the adopted toll structure is even smaller, less than 1 percent.

### ***Mesoscale Analysis by County – MSATs***

In comparing the adopted toll structure to the results in the Final EA/FONSI, in both the Final EA and for the adopted toll structure, six counties are identified with pollutant increases for at least one pollutant. With Tolling Scenario A, Richmond and Bergen Counties have the highest increase in pollutants. In the Final EA, increases of pollutants in Richmond County with Tolling Scenario A range from 1.01 percent to 1.99 percent and in Bergen County the increases range 0.40 percent to 0.82 percent.

In the adopted toll structure, increases of pollutants in Richmond County range from 1.09 percent to 2.39 percent. In Bergen County, the increases range from 0.90 percent to 1.04 percent. The increase in pollutants is considered small. Nassau and Putnam Counties show all reductions under the adopted toll structure, versus increases with Tolling Scenario A.

The Final EA analysis for Bronx County shows slight increases in all MSATs (.05 percent to 0.20 percent). The adopted toll structure for Bronx County shows some decreases (benzene and ethylbenzene) and higher increases for other pollutants, ranging from 0.33 percent to 1.22 percent. The overall increase of pollutants in the adopted toll structure is small. There are more reductions predicted for the adopted toll structure than for Tolling Scenario A in the Final EA/FONSI.

### **Microscale Analysis**

Screening was performed to determine whether detailed microscale modeling for CO, PM<sub>10</sub>, and PM<sub>2.5</sub> was required. Using the criteria in NYSDOT's *The Environmental Manual (TEM)* all 102 local intersections passed the screening analysis.

## Highway Link Analysis

Of the three locations analyzed, the truck volumes were below the levels evaluated in the Final EA/FONSI so they were not reevaluated here. The one location where the truck AADT was higher with the adopted toll structure was at the George Washington Bridge. The results shown in **Table 10.7** are below the NAAQS. The findings in the Final EA/FONSI are still valid and no further analysis is required.

The analysis for the adopted toll structure demonstrates that there are no potential adverse effects related to air quality and the conclusions of the Final EA remain valid. No additional mitigation is needed and the Project Sponsors remain committed to the enhancement measures described in the Final EA and FONSI.

Table 10.8 - Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA Chapter	Summary of Effects	Location	Data Shown in Table	Final EA Tolling Scenario							Potential Adverse Effect	Mitigation and Enhancements	Adopted Toll Structure	Potential Adverse Effect	Mitigation and Enhancements
				A	B	C	D	E	F	G					
10 – Air Quality	Increases or decreases in emissions related to truck traffic diversions	Cross Bronx Expressway at Macombs Road, Bronx, NY	Increase or decrease in Annual Average Daily Traffic (AADT)	3,901	3,996	2,056	1,766	3,757	2,188	3,255	No	<b>No mitigation needed.</b> No adverse effects  <b>Enhancements</b> 1. Refer to the overall enhancement on monitoring at the end of this table.  2. TBTA will work with NYC DOHMH to expand the existing network of sensors to monitor priority locations and supplement a smaller number of real-time PM <sub>2.5</sub> monitors to provide insight into time-of-day patterns to determine whether the changes in air pollution can be attributed to changes in traffic occurring after implementation of the Project. The Project Sponsors will select the additional monitoring locations in consideration of air quality analysis in the EA and input from environmental justice stakeholders. NYS Department of Environmental Conservation (NYSDEC) and other agencies conducting monitoring will also be consulted prior to finalizing the monitoring approach. The Project Sponsors will monitor air quality prior to implementation (setting a baseline), and two years following implementation. Following the initial two-year post-implementation analysis period, and separate from ongoing air quality monitoring and reporting, the Project Sponsors will assess the magnitude and variability of changes in air quality to determine whether more monitoring sites are necessary. Data collected throughout the monitoring program will be made available publicly as data becomes available and analysis is completed. Data from the real-time monitors will be available online continuously from the start of pre-implementation monitoring.  3. MTA is currently transitioning its fleet to zero-emission buses, which will reduce air pollutants and improve air quality near bus depots and along bus routes. MTA is committed to prioritizing traditionally underserved communities and those impacted by poor air quality and climate change and has developed an approach that actively incorporates these priorities in the deployment phasing process of the transition.  Based on feedback received during the outreach conducted for the Project and concerns raised by members of environmental justice communities, TBTA coordinated with MTA NYCT, which is committed to prioritizing the Kingsbridge Depot and Gun Hill Depot, both located in and serving primarily environmental justice communities in Upper Manhattan and the Bronx, when electric buses are received in MTA’s next major procurement of battery electric buses, which began in late 2022. This independent effort by MTA NYCT is anticipated to provide air quality benefits to the environmental justice communities in the Bronx.	3,917	No	<b>No mitigation needed.</b> The Project Sponsors are maintaining their commitment to implement the enhancement measures identified in the Final EA and FONSI.
			Percent change in AADT compared to No Action Alternative	2%	2%	1%	1%	2%	1%	2%			2%		
			Increase or decrease in daily number of trucks	509	704	170	510	378	536	50			433		
			Percent change in daily number of trucks compared to No Action Alternative	2%	3%	1%	2%	1%	2%	0%			2%		
			Potential adverse air quality effects from truck diversions	No	No	No	No	No	No	No			No		
		I-95, Bergen County, NJ	Increase or decrease in AADT	9,843	11,459	7,980	5,003	7,078	5,842	12,506	No	10,341	No		
			Percent change in AADT compared to No Action Alternative	4%	5%	3%	2%	3%	2%	5%		4%			
			Increase or decrease in daily number of trucks	801	955	729	631	696	637	-236		499			
			Percent change in daily number of trucks compared to No Action Alternative	2%	3%	2%	2%	2%	2%	-1%		1%			
			Potential adverse air quality effects from truck diversions	No	No	No	No	No	No	No		No			

EA CHAPTER	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
				A	B	C	D	E	F	G					
10 – Air Quality (Cont'd)	ncreases or decreases in emissions related to truck traffic diversions (Con'td)	RFK Bridge, NY	Increase or decrease in AADT	18,742	19,440	19,860	19,932	20,465	20,391	21,006	No	(See above)	20,273	No	No mitigation needed. The Project Sponsors are maintaining their commitment to implement the enhancement measures identified in the Final EA and FONSI.
			Percent change in AADT compared to No Action Alternative	13%	14%	14%	14%	15%	15%	15%			14%		
			Increase or decrease in daily number of trucks	2,257	2,423	2,820	3,479	4,116	3,045	432			2,433		
			Percent change in daily number of trucks compared to No Action Alternative	15%	16%	18%	22%	27%	20%	3%			16%		
			Potential adverse air quality effects from truck diversions	No	No	No	No	No	No	No			No		

**OVERALL PROJECT ENHANCEMENT.** The Project Sponsors commit to ongoing monitoring and reporting of potential effects of the Project, including for example, traffic entering the CBD, vehicle-miles traveled in the CBD; transit ridership from providers across the region; bus speeds within the CBD; air quality and emissions trends; parking; and Project revenue. Data will be collected in advance and after implementation of the Project. A formal report on the effects of the Project will be issued one year after implementation and then every two years. In addition, a reporting website will make data, analysis, and visualizations available in open data format to the greatest extent practicable. Updates will be provided on at least a bi-annual basis as data becomes available and analysis is completed. This data will also be used to support an adaptive management approach to monitoring the efficacy of mitigation, and adjustments as warranted.



# 11 Energy

Chapter 11 of the Final EA evaluated the effects of the CBD Tolling Alternative on energy use during operation and construction. This section evaluates the effects of the adopted toll structure on energy demand.

## METHODOLOGY

### Final EA Methodology

The Final EA evaluated the potential effects of the Project on the following elements:

- **Roadway energy:** Analyzed using the same methodology, assumptions and model as the regional air quality analysis documented in Chapter 10 of the Final EA (Tolling Scenario A, for the 12-county study area, using the USEPA's then-current emissions model, MOVES2014b). The analysis evaluated Tolling Scenario A because that scenario was predicted to have the smallest reduction in VMT. Using that scenario presents the smallest regional energy benefit; other tolling scenarios would have a larger benefit.
- **Server and systems energy:** Energy required to power monitoring and tolling equipment, including network detection systems, and servers that process the data collected by the network detection systems.
- **Construction energy:** Calculated based on the construction cost, using the NYSDOT construction cost calculation procedures to quantify energy use.

### Reevaluation Methodology

- **Roadway energy:** Consistent with the approach for the Final EA, the energy analysis for the reevaluation used the same methodology, assumptions, and model that were used for the reevaluation of air quality. The reevaluation of air quality for the adopted toll structure was of the 12-county study area, using USEPA's current emissions model (MOVES3.1). (See the section on air quality for further information about the models used for the reevaluation.)
- **Server, systems and construction energy:** There are no changes to the power requirements or construction costs of the Project with the adopted toll structure and therefore no further analysis needed.

## ANALYSIS AND RESULTS

Like Final EA Tolling Scenario A, the adopted toll structure would also result in a 17 percent reduction in VMT in the 12-county study area and a reduction in energy use in the region as compared to the No Action

Alternative (see **Table 11.1**). Based on this analysis, the conclusions in the Final EA for both 2023 and 2045 remain valid.

**Table 11.1. Percent Change in Energy Demand Vs. No Action Alternative (2023), Final EA and Adopted Toll Structure**

FINAL EA ANALYSIS (TOLLING SCENARIO A)	ADOPTED TOLL STRUCTURE
-0.6%	-0.6%

**Table 11.2** presents information from the Final EA Table ES-5 summarizing the conclusions related to regional energy use, now modified to include the adopted toll structure.

## FINDINGS

The reevaluation used BPM output related to VMT and vehicle speeds to calculate the effects of the adopted toll structure on energy use. It also used information on construction cost to calculate energy use related to construction activities for the Project. The analysis concluded that, consistent with the conclusions of the Final EA, the adopted toll structure would also result in a reduction in VMT in the 12-county study area and would also therefore reduce energy use as compared to the No Action Alternative. The adopted toll structure would not change the construction activities for the Project from those analyzed in the Final EA. Overall, the conclusions of the Final EA related to energy use remain valid.

Table 11.2. Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
11 – Energy		Reductions in regional energy consumption	12-county study area	Narrative	Reductions in regional VMT would reduce energy consumption							No	No mitigation needed. Beneficial effects	Same as Final EA	No	No mitigation needed. Beneficial effects

## 12 Noise

Chapter 12 of the Final EA presented an evaluation of the potential changes in traffic noise exposure that would result from projected changes in traffic volumes with the implementation of the CBD Tolling Alternative. This section evaluates the effects of the adopted toll structure on noise levels. Additional information is provided in **Appendix 12**.

### METHODOLOGY

#### Final EA Methodology

The methodology used to determine potential noise effects is described starting on page 12-1 of the Final EA, Section 12.1.2, “Methodology.” In summary, the Final EA analysis methodology included the following:

1. For consideration of traffic-related noise near bridge and tunnel crossings into the Manhattan CBD, used BPM results related to traffic volumes for the tolling scenario with the highest predicted traffic volumes, Tolling Scenario D, which was the tolling scenario analyzed in the Final EA’s traffic assessment (Subchapter 4B). Tolling Scenario D was the representative worst-case tolling scenario in terms of traffic volumes. As the noise analysis is based on traffic, this tolling scenario was used as the representative worst-case scenario for the noise analysis.
2. For evaluation of traffic-related noise at local intersections, used the same study areas and traffic volumes analyzed for traffic in the Final EA (Subchapter 4B) for all 102 local traffic intersections within 15 study areas. As with the traffic analysis, this assessment considered Tolling Scenario D at all locations, except in Downtown Brooklyn, where Tolling Scenario C was evaluated because it had higher traffic volumes there than the other tolling scenarios (this is consistent with the approach used for the traffic analysis).
3. Calculated incremental changes in noise levels for traffic volumes, using Passenger Car Equivalents (PCEs) (using PCEs, 1 auto = 1 PCE; 1 medium truck = 13 PCEs; 1 bus = 18 PCEs; 1 heavy truck = 47 PCEs) for each study area. As with the traffic analysis, the noise analysis used Tolling Scenario D at all locations except Downtown Brooklyn, for which it used Tolling Scenario C.
  - For bridge and tunnel crossings, calculated 24-hour change in weighted noise levels (dB(A))<sup>6</sup>.
  - For local intersections, calculated peak-period and late-night changes in dB(A).
4. For locations where predicted incremental noise levels were greater than 3.0 dB(A), which is the minimum level of potential perceptibility for most humans (see Final EA Chapter 12, Section 12.1.2.1), further analysis would be conducted using FHWA’s Traffic Noise Model (TNM) to

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<sup>6</sup> As described in the Final EA, Chapter 12, sound is typically measured in units of decibels (dB). The human hearing range is more sensitive to midrange frequencies compared to either low or very high frequencies. This characteristic of the human ear is accounted for by adjusting or weighting the spectrum of the measured sound level for the sensitivity of the human hearing range, referred to as the A-weighted scale, and is denoted by the dB(A) notation.

determine if the increases would be adverse. (No locations had predicted increases above 3.0 dB(A), so no further analysis was necessary.)

### Reevaluation Methodology

1. For the same study areas as the Final EA, used the traffic volumes developed for the reevaluation of traffic conditions.
2. Where traffic volumes were higher for the adopted toll structure than evaluated in the Final EA, calculated incremental changes in noise levels for traffic volumes, using same approach as in Final EA.
3. As in the Final EA, for any locations with predicted incremental noise increases greater than 3.0 dB(A), further analysis would be conducted to determine if the increases would be adverse. (As described below, no locations had predicted levels above this level so no further analysis was necessary.)

### ANALYSIS AND RESULTS

The reevaluation concluded that, similar to the Final EA, the adopted toll structure would not result in perceptible noise level increases at bridge and tunnel crossings or local intersections because the noise increase would not exceed the perceptible level of 3.0 dB(A). All projected noise level increases in the Final EA and with the adopted toll structure would be below the 3.0 dB(A) perceptibility level.

- **Bridge and Tunnel Crossings:** The predicted noise level increases with the adopted toll structure are all 0.5 dB(A) or less, less than the increases predicted in the Final EA. Where increases are predicted compared to the No Action Alternative, in most cases they are lower than, or equal to, those studied in the Final EA. As shown by comparison the results for the Final EA Tolling Scenarios C and Do to the results for the adopted toll structure in **Table 12.1** below, the adopted toll structure would result in greater increases than Tolling Scenarios C and D at five locations during certain times of the day. At these locations and these analysis hours, the increase over the No Action Alternative would be very small, ranging from 0.1 dB(A) to 0.5 dB(A). At all other locations and in all other time periods, the adopted toll structure would result in smaller changes in noise levels than the tolling scenarios evaluated in the Final EA.

The location where the highest noise level increase would occur would shift with the adopted toll structure. With the tolling scenarios evaluated in the Final EA, which were the tolling scenarios predicted to result in the highest traffic volumes in each study area, the highest noise-level increase would occur at the Queens-Midtown Tunnel, with an increase of 2.9 dB(A) during a five -hour periods. With the adopted toll structure, the highest predicted noise-level increase would occur at the Robert F. Kennedy (RFK) Bridge in Manhattan, with an increase of 0.5 dB(A) for an 11-hour period. With both the adopted toll structure and the Final EA tolling scenarios, the maximum noise-level increases would remain below the 3.0 dB(A) level of perceptibility. **Table 12.1** presents the results of the noise analysis for bridge and tunnel crossings for the Final EA and the adopted toll structure. Additional information is provided in **Appendix 12**. Overall, the increase in noise levels due to the adopted toll structure is less for the 16 locations evaluated in the Final EA.

Table 12.1 - Modified Final EA Table 12-4. Projected Noise-Level Changes (in dB(A)) for CBD Tolling Alternative at Bridge and Tunnel Crossings - Tolling Scenarios D and C – with the Adopted Toll Structure Below

Final EA Tolling Scenarios C and D

TIME	ED KOCH QUEENSBORO BRIDGE	QUEENS- MIDTOWN TUNNEL (SITE R1)	HUGH L. CAREY TUNNEL (SITE R2)	HOLLAND TUNNEL	LINCOLN TUNNEL	RFK BRIDGE – BRONX	RFK BRIDGE – MANHATTAN	RFK BRIDGE – QUEENS	WILLIAMSBURG BRIDGE	MANHATTAN BRIDGE	BROOKLYN BRIDGE	GEORGE WASHINGTON + HENRY HUDSON BRIDGES	HENRY HUDSON BRIDGE	VERRAZZANO- NARROWS BRIDGE	60TH STREET CROSSINGS	GEORGE WASHINGTON BRIDGE
12 AM	-1.9	<b>2.9</b>	1.8	-0.6	-0.3	0.0	0.5	0.0	-2.4	-1.7	-0.4	0.0	-0.1	0.2	-0.6	<b>0.1</b>
1 AM	-1.9	<b>2.9</b>	1.8	-0.7	-0.4	0.0	0.5	0.0	-2.4	-1.7	-0.3	0.0	-0.1	0.2	-0.6	<b>0.1</b>
2 AM	-1.9	<b>2.9</b>	<b>1.9</b>	-0.7	-0.2	0.0	0.5	0.0	-2.6	-1.7	-0.3	0.0	-0.1	<b>0.3</b>	-0.6	<b>0.1</b>
3 AM	-1.7	<b>2.9</b>	1.8	-0.6	-0.1	0.0	0.4	0.0	-2.9	-1.6	-0.4	0.0	-0.1	0.2	-0.6	<b>0.1</b>
4 AM	-1.6	<b>2.9</b>	1.8	-0.6	0.0	0.0	0.4	0.0	-3.2	-1.7	-0.4	0.0	-0.1	0.2	-0.6	<b>0.1</b>
5 AM	-1.5	2.7	1.8	-0.4	0.2	0.0	0.3	0.0	-3.3	-1.8	-0.5	0.0	-0.1	0.1	-0.6	<b>0.1</b>
6 AM	0.0	0.4	1.1	-0.3	-0.2	0.0	0.2	0.0	-0.3	-0.6	-0.2	0.0	0.0	0.0	-0.2	0.0
7 AM	0.0	0.1	0.6	-0.3	-0.2	0.0	0.2	0.0	-0.1	-0.6	-0.2	0.0	0.0	0.1	-0.2	0.0
8 AM	0.0	0.1	0.7	-0.3	-0.2	0.0	0.3	0.0	-0.1	-0.6	-0.1	0.0	0.0	0.1	-0.2	0.0
9 AM	0.0	0.1	1.0	-0.3	-0.2	0.0	0.3	0.0	-0.2	-0.6	-0.1	0.0	0.0	0.1	-0.2	0.0
10 AM	-0.4	0.4	1.1	-0.5	-0.4	0.0	0.3	0.0	-0.7	-1.8	-0.1	0.0	-0.1	0.2	-0.6	<b>0.1</b>
11 AM	-0.5	0.5	1.5	-0.5	-0.5	0.0	0.3	0.0	-1.0	-1.8	-0.2	0.0	-0.1	<b>0.3</b>	-0.6	<b>0.1</b>
12 PM	-0.8	0.7	1.7	-0.6	-0.5	0.0	0.3	0.0	-1.0	-1.7	-0.2	0.0	-0.1	<b>0.3</b>	-0.6	<b>0.1</b>
1 PM	-0.7	0.4	1.7	-0.6	-0.6	0.0	0.3	0.0	-0.9	-1.7	-0.3	0.0	-0.1	0.2	-0.6	<b>0.1</b>
2 PM	-0.7	0.3	1.1	-0.6	-0.6	0.0	0.4	0.0	-0.7	-1.6	-0.3	0.0	-0.1	0.2	-0.6	<b>0.1</b>
3 PM	-0.7	0.3	0.7	-0.5	-0.7	0.0	0.4	0.0	-0.5	-1.4	-0.3	0.0	-0.1	0.2	-0.6	<b>0.1</b>
4 PM	-0.9	0.7	0.7	-0.3	-0.6	0.0	0.3	0.0	-0.8	-0.4	-0.1	0.0	0.0	0.1	-0.2	0.0
5 PM	-1.0	0.6	0.7	-0.3	-0.6	0.0	0.3	0.0	-0.8	-0.5	-0.1	0.0	0.0	0.1	-0.2	0.0
6 PM	-0.7	0.6	0.8	-0.4	-0.6	0.0	0.3	0.0	-1.0	-0.5	-0.1	0.0	0.0	0.1	-0.2	0.0
7 PM	-0.8	0.8	1.1	-0.4	-0.6	0.0	0.3	0.0	-1.2	-0.5	-0.1	0.0	0.0	0.1	-0.2	0.0
8 PM	-1.5	1.2	1.4	-0.6	-0.3	0.0	<b>0.6</b>	0.0	-1.5	-1.7	-0.4	0.0	-0.1	0.2	-0.6	<b>0.1</b>
9 PM	-1.6	1.7	1.8	-0.6	-0.3	0.0	0.5	0.0	-2.0	-1.7	-0.4	0.0	-0.1	0.2	-0.6	<b>0.1</b>
10 PM	-1.5	2.2	1.8	-0.6	-0.3	0.0	0.5	0.0	-2.2	-1.7	-0.4	0.0	-0.1	0.2	-0.6	<b>0.1</b>
11 PM	-1.8	2.8	1.8	-0.7	-0.2	0.0	0.5	0.0	-2.6	-1.7	-0.4	0.0	-0.1	0.2	-0.6	<b>0.1</b>

Note: Values shown in **bold** indicate the greatest increase for the location.

Adopted Toll Structure

TIME	ED KOCH QUEENSBORO BRIDGE	QUEENS- MIDTOWN TUNNEL (SITE R1)	HUGH L. CAREY TUNNEL (SITE R2)	HOLLAND TUNNEL	LINCOLN TUNNEL	RFK BRIDGE – BRONX	RFK BRIDGE – MANHATTAN	RFK BRIDGE – QUEENS	WILLIAMSBURG BRIDGE	MANHATTAN BRIDGE	BROOKLYN BRIDGE	GEORGE WASHINGTON + HENRY HUDSON BRIDGES	HENRY HUDSON BRIDGE	VERRAZZANO- NARROWS BRIDGE	60TH STREET CROSSINGS	GEORGE WASHINGTON BRIDGE
12 AM	0.0	0.2	0.2	-0.7	-1.0	0.0	<b>0.5</b>	0.0	-0.9	-1.3	0.0	0.0	-0.6	<b>0.3</b>	0.0	0.3
1 AM	0.0	0.2	0.2	-0.7	-1.0	0.0	<b>0.5</b>	0.0	-0.9	-1.3	<b>0.1</b>	0.0	-0.6	<b>0.3</b>	0.0	0.3
2 AM	0.0	0.2	0.1	-0.7	-1.0	0.0	<b>0.5</b>	0.0	-0.9	-1.3	0.0	0.0	-0.6	<b>0.3</b>	0.0	<b>0.4</b>
3 AM	0.2	0.2	0.2	-0.7	-1.1	0.0	0.4	0.0	-0.9	-1.2	0.0	0.0	-0.7	<b>0.3</b>	0.0	<b>0.4</b>
4 AM	0.3	0.2	0.2	-0.7	-1.1	0.0	0.4	0.0	-0.9	-1.2	-0.1	0.0	-0.9	<b>0.3</b>	0.0	<b>0.4</b>
5 AM	<b>0.4</b>	<b>0.4</b>	0.4	-0.6	-1.2	0.0	0.3	0.0	-1.0	-1.3	-0.1	0.0	-1.1	<b>0.3</b>	0.0	0.4
6 AM	-1.9	0.2	0.4	-0.4	-0.4	0.0	0.2	0.0	-0.3	-0.8	-0.1	0.0	0.0	0.2	0.0	0.0
7 AM	-1.9	0.2	0.3	-0.5	-0.4	0.0	0.2	0.0	-0.3	-0.7	-0.1	0.0	0.0	0.2	0.0	0.0
8 AM	-1.9	0.2	0.3	-0.5	-0.4	0.0	0.2	0.0	-0.3	-0.7	-0.1	0.0	0.0	0.2	0.0	0.0
9 AM	-1.9	0.1	<b>0.5</b>	-0.4	-0.4	0.0	0.2	0.0	-0.3	-0.8	-0.1	0.0	0.0	0.2	0.0	0.0
10 AM	-0.5	-0.1	0.2	-0.7	-0.9	0.0	0.2	0.0	-0.7	-1.2	-0.2	0.0	-0.2	0.2	0.0	0.2
11 AM	-0.5	-0.1	0.2	-0.8	-0.9	0.0	0.2	0.0	-0.8	-1.2	-0.3	0.0	-0.2	0.2	0.0	0.2
12 PM	-0.6	-0.1	0.2	-0.8	-0.9	0.0	0.2	0.0	-0.8	-1.3	-0.2	0.0	-0.2	0.2	0.0	0.3
1 PM	-0.6	-0.1	0.2	-0.8	-0.9	0.0	0.2	0.0	-0.8	-1.3	-0.2	0.0	-0.2	0.2	0.0	0.3
2 PM	-0.6	-0.1	0.2	-0.8	-0.9	0.0	0.2	0.0	-0.8	-1.3	-0.2	0.0	-0.2	0.2	0.0	0.3
3 PM	-0.6	-0.2	0.2	-0.7	-0.9	0.0	0.3	0.0	-0.8	-1.3	-0.2	0.0	-0.2	0.2	0.0	0.3
4 PM	-0.7	-0.1	0.0	-0.4	-0.6	0.0	<b>0.5</b>	0.0	-0.5	-1.2	-0.4	0.0	0.0	0.1	0.0	0.1
5 PM	-0.6	-0.1	0.0	-0.4	-0.6	0.0	<b>0.5</b>	0.0	-0.5	-1.3	-0.4	0.0	0.0	0.1	0.0	0.1
6 PM	-0.9	0.0	0.0	-0.5	-0.6	0.0	<b>0.5</b>	0.0	-0.6	-1.3	-0.4	0.0	0.0	0.1	0.0	0.1
7 PM	-0.9	0.2	0.0	-0.5	-0.6	0.0	<b>0.5</b>	0.0	-0.6	-1.3	-0.4	0.0	0.0	0.1	0.0	0.1
8 PM	0.1	0.2	0.2	-0.7	-1.0	0.0	<b>0.5</b>	0.0	-0.9	-1.3	0.0	0.0	-0.7	<b>0.3</b>	0.0	0.3
9 PM	0.1	0.2	0.2	-0.7	-1.0	0.0	<b>0.5</b>	0.0	-0.9	-1.3	0.0	0.0	-0.7	<b>0.3</b>	0.0	0.3
10 PM	0.1	0.2	0.2	-0.7	-1.0	0.0	<b>0.5</b>	0.0	-0.9	-1.3	0.0	0.0	-0.6	<b>0.3</b>	0.0	0.3
11 PM	0.0	0.2	0.2	-0.7	-1.0	0.0	<b>0.5</b>	0.0	-0.9	-1.2	-0.1	0.0	-0.6	<b>0.3</b>	0.0	0.3

Notes: Values shown in **bold** indicate the greatest increase for the location. Yellow shading indicates an increase from the No Action that is greater than that from the Final EA Tolling Scenarios C and D.  
See Final EA Table 12-4 on page 12-9 for values with the CBD Tolling Alternative, Tolling Scenarios C and D.

- **Local Streets:** The location where the highest noise-level increase would occur at traffic intersections would also shift with the adopted toll structure. In the Final EA, this would occur during the midday in Lower Manhattan adjacent to Trinity Place and Edgar Street, with a maximum increase of 2.5 dB(A). With the adopted toll structure, the highest increase would occur near the intersection of West 179th Street and Broadway during the AM and midday periods, where a maximum increase of 2.8 dB(A) is projected (see **Table 12.2**). The results for all intersections evaluated are summarized in **Appendix 12**. Overall, with both the adopted toll structure and the Final EA tolling scenarios, the maximum noise-level increases would remain below the 3 dB(A) level of perceptibility resulting in no adverse effect.

**Table 12.2 - Estimated Directional Weighted (DW) PCE Noise Level Changes for Adopted Toll Structure, Little Dominican Republic Study Area, West 179th Street at Broadway**

APPROACH	MOVEMENT	LANE GROUP	MOVEMENT	AM		MIDDAY		PM	
				PCE	DW PCE	PCE	DW PCE	PCE	DW PCE
NB	NBL	L	Left	3.0	2.7	2.5	2.8	1.3	2.5
	NBT	T	Through	2.6		2.9		3.1	
SB	SBT	T	Through	3.0	2.8	1.9	1.6	1.6	0.9
	SBR	TR	R	2.2		1.1		-0.8	
WB	WBL	TR	Left	3.1	-0.1	1.9	-2.2	2.4	-2.8
	WBT		Through	-1.1		-3.3		-4.0	
	WBR		Right						

Notes: NB = northbound; SB = southbound; WB = westbound; NBL = northbound left turn; NBT = northbound through; SBT = southbound through; SBR = southbound right turn; WBL = westbound left turn; WBT = westbound through; WBR = westbound right turn; L = left turn; T = through; R = right turn; TR = through/right turn

**Table 12.3** presents information from the Final EA Table ES-5 summarizing the conclusions related to traffic-related noise on bridge and tunnel approaches and at local intersections, now modified to include the adopted toll structure.

## FINDINGS

For the reevaluation, the Project Sponsors used information related to traffic volumes from the BPM to evaluate the adopted toll structure's potential effects on noise levels near bridge and tunnel crossings into the Manhattan CBD and at local intersections where traffic volumes are predicted to increase. The reevaluation used the same methodology as the noise analysis in the Final EA. The analysis demonstrates that the conclusions of the Final EA related to noise remain valid. Projected noise level increases would remain below 3.0 dB(A), as described in the Final EA. Thus, the adopted toll structure would not result in potential adverse effects on ambient noise levels and no mitigation is needed.



Table 12.3 - Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
12 – Noise		Imperceptible increases or decreases in noise levels resulting from changes in traffic volumes	Bridge and tunnel crossings	Narrative	The maximum noise level increases (2.9 dB(A)), which were predicted adjacent to the Queens-Midtown Tunnel in Tolling Scenario D, would not be perceptible.							No	No mitigation needed. No adverse effects	The maximum predicted noise level increase (0.5 dB(A)), at RFK Bridge in Manhattan, would not be perceptible.	No	No mitigation needed. No adverse effects. The Project Sponsors are maintaining their commitment to mplement the enhancement measures identified in the Final EA and FONSI.
			Local streets	Narrative	Tolling Scenario C was used to assess noise level changes in Downtown Brooklyn, Tolling Scenario D was used at all other locations assessed. The maximum predicted noise level increases (2.5 dB(A)), which were at Trinity Place and Edgar Street, would not be perceptible. There was no predicted increase in noise levels in the Downtown Brooklyn locations.							No	Enhancement Refer to the overall enhancement on monitoring at the end of this table.	The maximum predicted noise level increases (2.8 dB(A)), at W. 179th St / Broadway, would not be perceptible.	No	

**OVERALL PROJECT ENHANCEMENT.** The Project Sponsors commit to ongoing monitoring and reporting of potential effects of the Project, including for example, traffic entering the CBD, vehicle-miles traveled in the CBD; transit ridership from providers across the region; bus speeds within the CBD; air quality and emissions trends; parking; and Project revenue. Data will be collected in advance and after implementation of the Project. A formal report on the effects of the Project will be issued one year after implementation and then every two years. In addition, a reporting website will make data, analysis, and visualizations available in open data format to the greatest extent practicable. Updates will be provided on at least a bi-annual basis as data becomes available and analysis is completed. This data will also be used to support an adaptive management approach to monitoring the efficacy of mitigation, and adjustments as warranted.

## Other Analyses: Natural Resources (EA Chapter 13), Hazardous Wastes (EA Chapter 14), Construction Effects (EA Chapter 15)

Chapters 13, 14, and 15 of the Final EA explored the effects on three analysis areas—natural resources, hazardous wastes, and construction effects, respectively—from the installation of the tolling infrastructure and tolling system equipment that will be used for the CBD Tolling Program. The adopted toll structure will use the same tolling infrastructure and tolling system equipment described and evaluated in the Final EA. Construction for the Project began in July 2023. The construction of tolling infrastructure and tolling system equipment is now complete. Power and communications are nearing completion and testing is under way. With the same infrastructure and equipment and construction activities as evaluated in the Final EA, the Final EA remains valid for these analysis areas and no further analysis is needed.

**Tables 13.1, 14.1, and 15.1** present information from the Final EA Table ES-5 summarizing the conclusions related to these topics, now modified to include the adopted toll structure.

### FINDINGS

The Final EA considered the effects from installation of tolling infrastructure and tolling system equipment related to natural resources, hazardous wastes, and construction effects. The adopted toll structure would have the same construction activities and the same permanent tolling infrastructure and tolling system equipment described and evaluated in the Final EA. Consequently, for these areas, the conclusions of the Final EA remain valid, and no additional construction commitments are needed. The Project Sponsors will implement the mitigation commitments described in the Final EA.

Table 13.1. Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
13 – Natural Resources		Construction activities to install tolling infrastructure near natural resources	Sites of tolling infrastructure and tolling system equipment	Narrative	No effects on surface waters, wetlands, or floodplains. Potential effects on stormwater and ecological resources will be managed through construction commitments. The Project is consistent with coastal zone policies.							No	Refer to <b>Chapter 13, “Natural Resources,”</b> for a listing of construction commitments to avoid, minimize, or mitigate potential negative effects.	Same as Final EA. No change proposed to new tolling infrastructure, tolling system equipment, or signage.	No	The Project Sponsors will implement the construction commitments described in the Final EA.

Table 14.1. Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
14 – Hazardous Waste		Potential for disturbance of existing contaminated or hazardous materials during construction	Sites of tolling infrastructure and tolling system equipment	Narrative	Soil disturbance during construction and the potential alteration, removal, or disturbance of existing roadway infrastructure and utilities that could contain asbestos-containing materials, lead-based paint, or other hazardous substances. Potential effects will be managed through construction commitments.							No	Refer to <b>Chapter 14, “Asbestos-Containing Materials, Lead-Based Paint, Hazardous Wastes, and Contaminated Materials,”</b> for a listing of construction commitments to avoid, minimize, or mitigate potential negative effects.	Same as Final EA. No change proposed to new tolling infrastructure, tolling system equipment, or signage.	No	The Project Sponsors will implement the construction commitments described in the Final EA.

Table 15.1. Modified Final EA Table ES-5. Summary of Benefits and Effects for the CBD Tolling Alternative with Comparison of Tolling Scenarios – with the Adopted Toll Structure Added

EA CHAPTER	TOPIC	SUMMARY OF EFFECTS	LOCATION	DATA SHOWN IN TABLE	FINAL EA TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	ADOPTED TOLL STRUCTURE	POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
					A	B	C	D	E	F	G					
15 – Construction Effects		Potential disruption related to construction for installation of tolling infrastructure	Sites of tolling infrastructure and tolling system equipment	Narrative	Temporary disruptions to traffic and pedestrian patterns, and noise from construction activities, with a duration of less than one year overall, and approximately two weeks at any given location. These effects will be managed through construction commitments.							No	Refer to <b>Chapter 15, “Construction Effects,”</b> for a listing of construction commitments to avoid, minimize, or mitigate potential negative effects.	Same as Final EA. No change proposed to construction for new tolling infrastructure, tolling system equipment, or signage.	No	The Project Sponsors will implement the construction commitments described in the Final EA.

## 16 Summary of Effects

Chapter 16 of the Final EA provides a summary of the direct, indirect, and cumulative effects of the CBD Tolling Alternative as discussed in the previous chapters of the Final EA. The reevaluation of the adopted toll structure presented in other sections of this document demonstrates that, with the adopted toll structure, the conclusions in the Final EA remain valid and there is no need for additional mitigation. Consequently, the summary of direct, indirect, and cumulative effects also remains valid.

**Table 1.1** in **Section 1** of this reevaluation provides a summary of the effects of the adopted toll structure in comparison to the effects presented in the Final EA. The table is a re-creation of the table that was provided in the Final EA as Table ES-5 and Table 16-1, now modified to include the adopted toll structure.

## 17 Environmental Justice

Chapter 17 of the Final EA presented an evaluation of the CBD Tolling Alternative's potential for disproportionately high and adverse effects to environmental justice populations, including effects on local communities and effects related to regional mobility. This section presents a reevaluation of that topic for the adopted toll structure.

### METHODOLOGY

#### Final EA Methodology

The methodology used to determine potential effects on environmental justice populations is described starting on page 17-2 of the Final EA, Section 17.3, "Methodology." As described in that section, the environmental justice analysis evaluated two types of effects of the CBD Tolling Program:

- **Local (Neighborhood) Effects:** The Final EA evaluated the effects on neighborhoods related to changes in traffic patterns and the resulting effects in terms of traffic congestion, air emissions, and noise; it then assessed whether any such effects would occur disproportionately to environmental justice populations. This included analysis for the Final EA of increases or decreases in traffic and truck traffic as a result of traffic diversions in communities already highly burdened by pre-existing air pollution and chronic diseases. For the local (neighborhood) effects, the Final EA used a 10-county study area where localized effects (such as changes in traffic volumes, air emissions, or noise) would occur as a result of the Project.
- **Regional Effects:** The Final EA considered how implementation of the CBD Tolling Alternative would affect the regional population in terms of increased costs (tolls), changes in trip time, and changes in transit conditions, and whether any effects would occur disproportionately to environmental justice populations. For regional effects, the Final EA evaluated the 28-county regional study area, which is the main catchment area for trips to and from the Manhattan CBD and the area where changes in travel patterns and mobility would occur.

#### Reevaluation Methodology

The reevaluation used the same methodology as the Final EA in considering the local (neighborhood) effects and regional effects of the adopted toll structure.

#### ANALYSIS AND RESULTS: LOCAL (NEIGHBORHOOD) EFFECTS

The Final EA considered a range of issues that had the potential to result in local, neighborhood effects:

- Increased traffic congestion on highway segments
- Changes in traffic conditions at local intersections

- Traffic-related effects on noise
- Increases to transit ridership
- Changes in passenger flows at transit stations
- Changes in pedestrian circulation near transit hubs
- Potential for indirect displacement
- Potential effects on the costs of goods
- Traffic-related effects on air quality (including a supplemental analysis for the Final EA of Project effects of traffic and truck traffic on communities with associated high pre-existing air pollutant and health burdens)

The Final EA concluded that, with the implementation of mitigation, the CBD Tolling Alternative would not result in disproportionately high and adverse effects on environmental justice populations in those topic areas.

## ANALYSIS AND RESULTS: REGIONAL

### Low-Income Drivers

As documented in the Final EA, a total of 16,100 low-income workers drive to the Manhattan CBD for work, based on Census Transportation Planning Program (CTPP) data. The EA published in August 2022 concluded that the increased cost to drivers with the new CBD toll would disproportionately affect low-income drivers who currently drive to the Manhattan CBD and do not have reasonable alternative transportation modes available, because the cost of the toll would consume a larger percentage of their available income. To avoid that potential disproportionate adverse effect, in the Final EA, the Project Sponsors committed to a program of mitigation measures for low-income frequent drivers. With further analysis of the population affected (as documented in Appendix 17E, “Approach to Mitigating the Effect of CBD Tolls on Low-Income Frequent Drivers”), and the addition of mitigation measures committed to by the Project Sponsors (see **Table 17.1** below), the Final EA concluded there would not be a disproportionately high and adverse effect on low-income drivers.

As shown in **Table 17.1**, the adopted toll structure includes passenger toll rates within the range evaluated in the Final EA and enhances the mitigation commitments by offering a 50 percent discount off the peak hour toll after 10 trips per month for low-income drivers, giving a deeper discount than that committed to in the Final EA.<sup>7</sup> Therefore, the conclusions of the Final EA remain valid for low-income drivers.

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<sup>7</sup> In the Final EA, the Project Sponsors committed \$47.5 million over 5 years for Low-Income Discount Plan for low-income frequent drivers; with the adopted toll structure, the Project Sponsors will commit \$82 million over 5 years to the deeper discount.

**Table 17.1 - Mitigation Commitments for Low-Income Drivers in Final EA and Adopted Toll Structure**

FINAL EA	ADOPTED TOLL STRUCTURE
<b>Toll Rates Evaluated</b>	
Auto toll rates evaluated: \$9 - \$23 peak; \$7 - \$17 off-peak; \$5 - \$12 overnight	Auto toll rates within the range of the Final EA: \$15 peak; \$3.75 overnight
<b>Mitigation Commitments</b>	
Tax credit for CBD tolls paid by residents of the Manhattan CBD whose New York adjusted gross income for the taxable year is less than \$60,000.	Commitment remains, not specific to the adopted toll structure
Information related to the tax credit to be posted on the Project website, with a link to the appropriate location on the NYS DTF website.	Commitment remains, not specific to the adopted toll structure
Elimination of the \$10 E-ZPass tag deposit fee for customers without credit card backup.	Commitment remains, not specific to the adopted toll structure
Enhanced promotion of existing E-ZPass payment and plan options, including the ability for drivers to pay per trip (rather than a pre-load balance), refill their accounts with cash at participating retail locations, and discount plans already in place.	Commitment remains, not specific to the adopted toll structure
Outreach and education on eligibility for existing discounted transit fare products and programs.	Commitment remains, not specific to the adopted toll structure
Establishment of an Environmental Justice Community Group that will meet on a quarterly basis, with the first meeting prior to Project implementation, to share updated data and analysis and listen to potential concerns.	Commitment remains, not specific to the adopted toll structure
An overnight toll rate that is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final CBD tolling structure, which will benefit low-income drivers traveling during this time.  In the Final EA, a total of \$30 million was allocated over 5 years for this discounted overnight toll.	The adopted toll structure includes an overnight toll discounted further than the mitigation commitment: 9 PM – 5 AM weekdays, 9 PM – 9 AM weekends 25% of peak toll rate, overnight EZP rates as follows: Auto - \$3.75 Small truck - \$6.00 Large truck - \$9.00  A total of \$123 million will be allocated over 5 years for this discounted overnight toll.
For the first five years of the Project, the final tolling structure to include a discounted toll rate for low-income frequent drivers who have either a Federal adjusted gross income reported on their income tax return for the prior calendar year in the amount of no more than \$50,000 or proof of enrollment in a qualifying government-provided income-based program: <ul style="list-style-type: none"> <li>A 25 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month (not including the overnight period, which will already be deeply discounted).</li> <li>Results in a discounted base auto toll rate of \$7 - \$17, depending on the tolling scenario.</li> <li>In the Final EA, a total \$47.5 million was allocated for this discount over 5 years</li> </ul>	Low-Income Discount Plan included as part of the adopted toll structure, but discounted further than the mitigation commitment: <ul style="list-style-type: none"> <li>A 50 percent discount on the peak toll rate after the first 10 trips each month.</li> <li>Results in a discounted base auto toll rate of \$7.50.</li> <li>A total of \$82 million will be allocated over 5 years for this increased discount.</li> </ul>

## Minority Drivers

The Final EA determined that for minority drivers who have no reasonable alternative mode for reaching the Manhattan CBD other than private vehicle, the cost of the new CBD toll would have the same effect as experienced by the general population and no disproportionately high and adverse effect would occur.

The Final EA also included a separate analysis of the Project's effect on taxi and FHV drivers, discussed below.

## Minority Taxi and FHV Drivers

The EA published in August 2022 concluded that taxi and FHV drivers would be adversely affected by the cost of the toll if tolled more than once per day, because the reduction of VMT for taxi and FHV with paying customers in Manhattan, and particularly in the CBD, would lead to income loss and losses in employment, given that the income of taxi and FHV drivers is directly related to the miles they travel with paying customers. Based on available data from the TLC, 96 percent of taxi drivers and 91 percent of FHV drivers were born in countries other than the United States and more than half from countries that would be considered minority populations for this analysis. The Final EA/FONSI identified adverse effects to taxi and/or FHV drivers in New York City in tolling scenarios that charge their vehicles more than one passenger-vehicle toll per day.<sup>8</sup> The mitigation commitment was to adopt a toll structure with a toll of no more than once per day for taxi and FHV drivers. In the Final EA/FONSI, with the inclusion of this mitigation commitment, FHWA concluded that no disproportionately high and adverse effect would occur to taxi and FHV drivers.

With the adopted toll structure, taxi and FHV drivers would be tolled for each trip entering, leaving, and within the CBD made with passengers. The base toll for taxis (including yellow taxis, green cabs, and FHV drivers other than high-volume FHV drivers),<sup>9</sup> the base toll would be \$1.25 per trip with paying passengers for trips to, within, or from the Manhattan CBD; for high-volume FHV drivers,<sup>9</sup> the base toll would be \$2.50 per trip with paying passengers for trips to, within, or from the Manhattan CBD. Based on the average number of trips taxis and FHV drivers make each day, the toll amount for taxis and FHV drivers is equivalent to the once-daily auto peak rate in the adopted toll structure of \$15. Based on a TLC analysis of trips made by TLC-licensed vehicles in May 2023, the average number of trips for taxis with passengers to/from/within the CBD is 12, and for FHV drivers it is 6. The adopted toll structure, based on the toll rate for taxis and FHV drivers and the average number of trips per day for those vehicles, is consistent with the Project Sponsors' commitment to toll taxis and FHV drivers no more than

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<sup>8</sup> As noted in the Final EA on page 17-23, based on data from the New York City Taxi and Limousine Commission about the countries of origin of taxi and FHV drivers in New York City, for purposes of this analysis, New York City taxi and FHV drivers are identified as a minority population.

<sup>9</sup> The Final EA provides information on the types of vehicles licensed by the New York City Taxi and Limousine Commission (TLC) in Chapter 6, "Economic Conditions," Section 6.3.2.6, on page 6-32. These include yellow cabs, for which TLC has issued medallions; green cabs, which are street-hail livery cabs that begin their trips outside the core service area of Manhattan; and FHV drivers, which provide pre-arranged service. Vehicles licensed as app-based, or high-volume, FHV drivers operate from bases that dispatch more than 10,000 trips a day. (<https://www.nyc.gov/site/tlc/businesses/high-volume-for-hire-services.page>). Currently there are two TLC-licensed high-volume FHV drivers: Lyft and Uber. In this reevaluation document and the Final EA, the term "taxi" is used to refer to yellow cabs, green cabs, and FHV drivers that are not high-volume FHV drivers and the term "FHV" refers to high-volume FHV drivers (i.e., Lyft and Uber).



once per day. The smaller per-trip charge ensures that the passenger is responsible for the cost of the toll and the drivers do not bear the burden of the cost.

As shown in **Table 17.2**, the adopted toll structure would limit the reduction in demand for taxis and FHV in the Manhattan CBD relative to the No Action, resulting in only 0.3 percent reduction in taxi and FHV VMT (-904 VMT) within the Manhattan CBD. Comparing the adopted toll structure to the tolling scenarios evaluated in the Final EA that limited the toll on taxis and FHV to once per day (Tolling Scenarios B, F, and Modified G) and did not result in an adverse effect on taxi and FHV drivers, the adopted toll structure would reduce taxi and FHV VMT in New York City by 1.6 percent, which falls between the 1 to 1.7 percent decrease with those Final EA tolling scenarios. Within the 28-county study area (including the CBD), the adopted toll structure would reduce taxi and FHV VMT by 0.7 percent, which is more than Modified Tolling Scenario G, with a 0.5 percent reduction, and less than Tolling Scenario F, with a 1.0 percent reduction—again falling within the range of scenarios that did not have an adverse effect on taxi and FHV drivers in the Final EA/FONSI. With the adopted toll structure, the slight reduction in VMT for taxis and FHV in the Manhattan CBD would maintain income for taxi and FHV drivers close to existing levels without increasing VMT within the CBD. Increased VMT would add to the congestion in the CBD, in contrast to the purpose and need of this Project.

Therefore, the adopted toll structure is consistent with the commitments in the Final EA related to taxi and FHV drivers. The conclusions of the Final EA remain valid.

**Table 17.2 - Modified Final EA Table 17-14. Change in Taxi/For-Hire Daily Vehicle-Miles Traveled in New York City vs. No Action Alternative - with the Adopted Toll Structure Added**

GEOGRAPHIC AREA	FINAL EA TOLLING SCENARIOS								ADOPTED TOLL STRUCTURE
	A	B	C	D	E	F	G	MODIFIED G	
Taxi Toll Policy	All Entries	Once per Day	Exempt	All Entries	Exempt	Once per Day	All Entries	Once per Day	\$1.25 per trip toll on trips to, within, or from the CBD (see note)
High-Volume FHV Toll Policy			Up to 3 Times Daily		Up to 3 Times Daily				\$2.50 per trip toll on trips to, within, or from the CBD (see note)
Peak Toll Rate	\$9	\$10	\$14	\$19	\$23	\$23	\$12	\$12	\$15
Bronx County	-8,392 (-3.1%)	-5,717 (-2.1%)	-6,426 (-2.4%)	-9,346 (-3.4%)	-3,991 (-1.5%)	-1,959 (-0.7%)	-7,831 (-2.9%)	-1,621 (-0.6%)	+16 (+0.0%)
Kings County (Brooklyn)	-33,855 (-9.1%)	-20,648 (-5.5%)	-10,247 (-2.7%)	-37,923 (-10.2%)	-27,854 (-7.5%)	-7,095 (-1.9%)	-39,183 (-10.5%)	-22,971 (-6.2%)	-5,857 (-1.6%)
New York County (Manhattan)	-77,843 (-10.9%)	-19,553 (-2.7%)	-51,989 (-7.3%)	-119,349 (-16.7%)	-73,223 (-10.2%)	-17,076 (-2.4%)	-87,944 (-12.3%)	-27,897 (-3.9%)	-25,105 (-4.9%)
Inside Manhattan CBD	-21,498 (-6.6%)	+15,020 (+4.6%)	-11,371 (-3.5%)	-54,476 (-16.8%)	-25,621 (-7.9%)	+4,962 (+1.5%)	-27,757 (-8.6%)	+10,203 (+3.1%)	-904 (-0.3%)
Outside Manhattan CBD	-56,345 (-14.4%)	-34,573 (-8.8%)	-40,618 (-10.4%)	-64,873 (-16.6%)	-47,602 (-12.2%)	-22,038 (-5.6%)	-60,187 (-15.4%)	-38,100 (-9.7%)	-34,201 (-8.7%)
Queens County	-3,873 (-0.4%)	+21,258 (+2.0%)	-10,804 (-1.0%)	-47,911 (-4.4%)	-19,342 (-1.8%)	+4,979 (+0.5%)	-7,812 (-0.7%)	+14,644 (+1.3%)	+5,311 (+0.5%)
Richmond County (Staten Island)	-4,884 (-8.6%)	-5,071 (-8.9%)	-4,940 (-8.7%)	-4,539 (-8.0%)	-6,002 (-10.5%)	-4,370 (-7.7%)	-4,917 (-8.6%)	-5,636 (-9.9%)	-4,405 (-7.7%)
<b>NEW YORK CITY TOTAL</b>	<b>-128,847 (-5.1%)</b>	<b>-29,731 (-1.2%)</b>	<b>-84,406 (-3.4%)</b>	<b>-219,068 (-8.8%)</b>	<b>-130,412 (-5.2%)</b>	<b>-25,521 (-1.0%)</b>	<b>-147,687 (-5.9%)</b>	<b>-43,481 (-1.7%)</b>	<b>-40,040 (-1.6%)</b>

Notes: Projections include VMT only during fares and do not include cruising without passenger(s), to reflect effects on demand and revenues.

Tolling Scenario Modified G was not included in Final EA Table 17-14, but was discussed in the narrative on the following page, Final EA page 17-54.

Yellow shading in the table highlights the Final EA tolling scenarios that limited tolls on taxis and FHV's to one passenger-vehicle toll per day.

The per-trip tolls in the adopted toll structure would be equivalent to the auto peak rate of \$15 (based on TLC analysis of trips made by TLC-licensed vehicles in May 2023: for taxis the average daily number of trips with passengers to/from/within the CBD is 12, and for FHV's it is 6).

## ANALYSIS AND RESULTS: LOCAL (NEIGHBORHOOD) EFFECTS RELATED TO TRAFFIC DIVERSIONS

For the Final EA, the Project Sponsors conducted additional analysis of the potential effects of traffic diversions resulting from the CBD Tolling Alternative on environmental justice communities that are already highly burdened by pre-existing air pollution and chronic diseases and could see increased traffic. The analysis concluded that in some environmental justice census tracts that have high pre-existing pollutant burdens or chronic disease burdens where the CBD Tolling Alternative would increase traffic, these traffic increases have the potential to increase pollutant burdens and could contribute to chronic disease burdens and therefore could constitute a potential adverse effect on these particularly vulnerable environmental justice populations. The specific census tracts that would experience increased or decreased traffic changed slightly depending on the tolling scenario, but the affected communities remain largely the same. The effects would vary in magnitude depending on the additional volume of traffic and the extent of pre-existing pollutant and chronic disease burdens.

As in the Final EA, under the adopted toll structure the Project Sponsors committed to implement mitigation measures related to potential Project-related traffic diversions, related air pollutants, and associated health effects to benefit environmental justice communities that are already highly burdened by pre-existing air pollution and/or chronic diseases, relative to national percentiles. Mitigation measures will include regional measures, which will reduce truck diversions and reduce emissions. These regional measures will benefit communities with census tracts where individuals experience either pre-existing pollutant burdens or chronic-disease burdens at or above the 90th percentile among all communities in the United States, and where the Project could increase exposure to truck traffic due to traffic diversions as well as related pollutants and associated health effects.

Mitigation measures also include place-based measures to reduce emissions and improve air quality and/or health outcomes in areas with the greatest pre-existing burdens that would also be affected by Project-related diversions. As in the Final EA, under the adopted toll structure, the areas identified for place-based mitigation are the environmental justice census tracts where individuals experience at least one pre-existing pollutant burden and at least one pre-existing chronic disease burden at or above the 90th percentile, nationally, and where truck proximity could increase as a result of the Project.

In addition, in the Final EA and under the adopted toll structure, results from analysis of non-truck traffic effects drew attention to traffic increases on the FDR Drive adjacent to the Lower Manhattan and Lower East Side communities. Additional modeling for the Final EA indicated that 25 to 35 percent of these increases could be mitigated by ensuring that vehicles traveling to Manhattan on the Brooklyn Bridge and then southbound on the FDR Drive by first going north, then exiting from the FDR Drive to East Houston Street, and then immediately turn left to head back south on the FDR Drive, would be tolled. In addition to the traffic monitoring plan for this area related to potential adverse effects on traffic, the adopted toll structure does not make this a free movement reducing traffic diversions in the Lower Manhattan and Lower East Side communities. The increases in AADT on the FDR Drive described in **Table 17.11**, below, do not include this 25 to 35 percent reduction, meaning that the potential increases shown are larger than those that could be anticipated.

Additional detail on these mitigation measures and how they will be allocated can be found in the sections **“Regional and Place-Based Mitigation”** and **“Benefits and Allocation of Funding for Mitigation Measures,”** below.

To fund these mitigation measures, the Project Sponsors committed to \$155 million over 5 years in the Final EA. Under the adopted toll structure, the Project Sponsors will commit \$248 million over 5 years by deepening the overnight toll discount and expanding the hours in which the discount will be offered.<sup>10</sup> Table 17-13 shows the mitigation measures committed to by the Project Sponsors.

An adaptive management approach will be used, including monitoring the efficacy of mitigation, ongoing stakeholder consultation, and making adjustments as warranted. As committed to in the Final EA, TBTA has begun work with NYC DOHMH to expand New York City’s existing air-quality monitoring network and is gathering readings from monitoring sites in Bergen and Hudson Counties, New Jersey through USEPA’s Air Quality System. The monitoring effort will allow the Project Sponsors to determine whether any changes in air pollution can be attributed to changes in traffic occurring after implementation of the Project. As part of adaptive management, the toll schedule adopted by the TBTA Board allows for a percentage increase/decrease of up to 10 percent on CBD tolls and credits to respond to monitoring results if appropriate.

The analysis of effects related to traffic diversions on highly burdened environmental justice communities evaluated whether non-truck traffic proximity and truck traffic proximity could increase as a result of the Project in each census tract within the local study area. The analysis also evaluated whether truck traffic proximity could decrease. As defined in the Final EA Appendix 17D, Section 17D.4 (page 17D-14), highway non-truck and highway truck traffic proximity are measures of the amount of daily highway traffic near the population center within each census tract. Highway truck traffic proximity was a particular focus, because diesel emissions have a higher level of particulate matter, which is associated with adverse health outcomes, and because Project-related diversions would mainly occur on highways.<sup>11</sup>

Census tracts are, as defined by the U.S. Census Bureau, statistical subdivisions of a county or statistically equivalent entity. Communities contain multiple census tracts. As described in Final EA Appendix 17D, communities are defined as either municipalities (outside New York City) or neighborhoods (within New York City).<sup>12</sup> Within the five New York City counties, these neighborhoods were identified using the United Hospital Fund (UHF) neighborhood definitions—a geography designed for health research.<sup>13</sup> Environmental justice census tracts are census tracts where a greater proportion of the population is minority and/or low-income, as identified using the methodology described in Final EA Chapter 17, Section 17.5.1 (page 17-8).

Environmental justice census tracts where individuals experience at least one pre-existing pollutant burden or at least one pre-existing chronic disease burden at or above the 90th percentile, nationally, and where

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<sup>10</sup> The \$248 million committed is in addition to \$5 million allocated for mitigation and enhancement measures related to monitoring across other topics, along with \$82 million for the low-income toll discount to be implemented.

<sup>11</sup> See Final EA, Appendix 17D, Section 17D-6.1.1 on page 17D-43 and 17D-6.1.3 on page 17D-44 for an explanation of how truck traffic proximity is calculated.

<sup>12</sup> See Final EA Appendix 17D, Section 17D-6.1.4, p. 17D-50.

<sup>13</sup> See Final EA, Appendix 17D, Section 17D-5.5.2, page 17D-29, Footnote 68 for more information on UHF neighborhoods.

truck proximity could increase as a result of the Project, were identified as “90 or 90” census tracts. Environmental justice census tracts where individuals experience at least one pre-existing pollutant burden and at least one pre-existing chronic disease burden at or above the 90th percentile, nationally, and where truck proximity could increase as a result of the Project were identified as “90 and 90” census tracts.<sup>14</sup>

As noted in Final EA, Appendix 17D, Section 17D-6.1.2, truck diversions would occur in every tolling scenario, but Tolling Scenario E had the maximum predicted truck diversions by volume for all census tracts in the 10-county environmental justice study area.<sup>15</sup> For this reason, the Project Sponsors presented potential truck-traffic proximity under Tolling Scenario E in the Final EA. The Project Sponsors also presented potential non-truck traffic proximity under Tolling Scenario E, as well as Tolling Scenario G; as noted in Section 17D-6.1.5 of Final EA Appendix 17D, modeled traffic results from the BPM indicated that Tolling Scenario G was the scenario with the largest potential increases in non-truck traffic across the environmental justice-designated census tracts in the 10-county environmental justice study area.<sup>16</sup> Any community with one or more environmental-justice-designated census tract meeting the “90 or 90” or “90 and 90” criteria was identified in the Final EA as a community that is already overburdened by pre-existing air pollution and chronic diseases. The Project Sponsors committed to a package of regional (for “90 or 90” communities) and place-based (for “90 and 90” communities) measures to mitigate potential adverse effects on environmental justice populations.

The same methodology described in Appendix 17D of the Final EA, “Technical Memorandum: Considerations for Environmental Justice Communities with Existing Pollution or Health Burdens,” was used to evaluate the adopted toll structure for potential effects and identify the relevant “90 or 90” and “90 and 90” communities.

The overall findings for the adopted toll structure are described in the following paragraphs.

## Truck Traffic

- **Potential Project Truck Diversion Effects:** Considering the shares of environmental-justice-designated census tracts and non-environmental-justice census tracts with potential truck diversion effects (defined as increases in truck-traffic proximity), the adopted toll structure would have more balanced potential truck diversion effects. As shown in **Table 17.3**, which is Final EA Table 17D-11 with the adopted toll structure added, for the 434 census tracts in the 10-county environmental justice study area that are within 300 meters of a highway, the Final EA predicted that 50 percent of the environmental justice-designated census tracts and 41 percent of the non-environmental justice-designated census tracts would have an increase in truck traffic proximity (a total of 205 tracts). **Table 17.3** also shows that 18 percent of environmental justice-designated census tracts and 19 percent of the non-environmental justice-designated census tracts would have a decrease in truck traffic proximity (a total of 79 tracts). For the adopted toll structure, the number of census tracts affected by

<sup>14</sup> Note that, by these definitions from the Final EA, “90 and 90” census tracts are also “90 or 90” census tracts; the former is a subset of the latter.

<sup>15</sup> Final EA Appendix 17D, page. 17D-43.

<sup>16</sup> Final EA Appendix 17D, page 17D-60.

an increase in truck traffic proximity would be slightly higher (209 tracts rather than 205 tracts), but the results would be more evenly distributed between non-environmental justice-designated tracts (47 percent rather than 41 percent) and environmental justice-designated tracts (49 percent rather than 50 percent) and the number of affected environmental justice-designated tracts would be lower than with the Final EA (151 rather than 154). The number of census tracts having a decrease in truck traffic proximity would be slightly lower (74 tracts rather than 79 tracts); a greater number of environmental justice-designated census tracts would have a decrease (59 tracts rather than 56 tracts), and a smaller number of non-environmental justice-designated tracts would have a decrease (15 tracts rather than 23 tracts).

- **Intensity of Potential Truck-Traffic Increases:** The adopted toll structure would have lower intensities of truck-traffic proximity increases in “90 and 90” and “90 or 90” environmental justice-designated census tracts. This is illustrated in Table 17.4, which provides the minimum, average, and maximum increase in truck-traffic proximity for the “90 and 90” and “90 or 90” environmental justice-designated census tracts for Final EA Tolling Scenario E and the adopted toll structure. This proximity factor is closely related to the exposure of the emission pollutants. As described in Final EA Appendix 17D, “the change in truck traffic proximity for each environmental justice census tract is equal to the difference between truck AADT on freeways and interstates in the CBD Tolling Alternative and the No Build Alternative, as forecasted in the BPM, within 300 meters (approximately 1,000 feet) of the population-weighted census tract centroid, divided by distance in meters.”<sup>17</sup> For “90 and 90” environmental justice-designated census tracts, the average increase and maximum increase in truck-traffic proximity that would occur with the adopted toll structure shows decreases from the Final EA Tolling Scenario E, with the average reduced from 6.80 to 4.85 and the maximum reduced from 122.71 to 72.13. Similarly, the “90 or 90” environmental justice-designated census tracts show a decrease in the average and maximum increases in truck-traffic proximity with the adopted toll structure compared to the Final EA Tolling Scenario E. The average truck-traffic proximity increase under the Final EA was 7.50 and the average with the adopted toll structure is 4.99. The maximum increase for these “90 or 90” census tracts drops from 122.71 to 72.13 with the adopted toll structure. **Figure 17.1** visually compares the intensity of potential truck traffic proximity decreases in Tolling Scenario E and the adopted toll structure among “90 or 90” environmental justice census tracts; **Figure 17.2** provides the same comparison but for the intensity of potential truck traffic proximity increases.

<sup>17</sup> See Final EA, Appendix 17D, Section 17D-6.1.1, page 17D-43. For further description of traffic proximity in US EPA’s EJScreen, calculation methods, and how to interpret the measure, see Final EA, Appendix 17D, Section 17D-4, pp. 17D-14 and 17D-15, Section 17D-6.1.1, p. 17D-43, Sections 17D-6.1.3 and 17D-6.1.4, p. 17D-44.

**Table 17.3 - Modified Final EA Table 17D-11. Summary of Project Effects on Truck Traffic Proximity (Tolling Scenario E) - With the Adopted Toll Structure Added**

TYPE OF HIGHWAY TRUCK TRAFFIC PROXIMITY CHANGES RESULTING FROM THE PROJECT	NUMBER OF TRACTS WITH PRE-EXISTING AIR POLLUTANT OR CHRONIC DISEASE BURDENS WITHIN 300 METERS OF A HIGHWAY						% OF COMMUNITY TYPE AFFECTED			
	FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE			FINAL EA SCENARIO E		ADOPTED TOLL STRUCTURE	
	NON- ENVIRON- MENTAL JUSTICE TRACTS	ENVIRON- MENTAL JUSTICE TRACTS	TOTAL TRACTS	NON- ENVIRON- MENTAL JUSTICE TRACTS	ENVIRON- MENTAL JUSTICE TRACTS	TOTAL TRACTS	NON-ENVIRON- MENTAL JUSTICE TRACTS	ENVIRON- MENTAL JUSTICE TRACTS	NON-ENVIRON- MENTAL JUSTICE TRACTS	ENVIRON- MENTAL JUSTICE TRACTS
Tracts with Decrease in Truck Traffic Proximity	23	56	79	15	59	74	19%	18%	12%	19%
Tracts with No Change in Truck Traffic Proximity	49	101	150	50	101	151	40%	32%	41%	32%
Tracts with Increase in Truck Traffic Proximity	51	154	205	58	151	209	41%	50%	47%	49%
Total Tracts	123	311	434	123	311	434	100%	100%	100%	100%

Source: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates; USEPA National Air Toxics Assessment (NATA) 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; Centers for Disease Control (CDC) PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

**Table 17.4 - Range of Truck-Traffic Proximity Increases for Environmental Justice-Designated Overburdened Tracts, Final EA and Adopted Toll Structure**

TOPIC	LOCATION	DATA SHOWN IN TABLE	TRUCK TRAFFIC PROXIMITY CHANGE (DAILY TRUCKS PER METER DISTANCE)	
			FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE
Increases in truck traffic proximity, as a result of traffic diversions, in communities already overburdened by preexisting air pollution and chronic diseases	90 AND 90 Environmental Justice-Designated Census Tracts (Place-Based)	Minimum Increase	0.21	0.13
		Average Increase	6.80	4.85
		Maximum Increase	122.71	72.13
	90 OR 90 Environmental Justice-Designated Census Tracts (Regional)	Minimum Increase	0.01	0.02
		Average Increase	7.50	4.99
		Maximum Increase	122.71	72.13

Sources: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.



Figure 17.1 – Environmental Justice Census Tracts with Either Pre-Existing Pollutant Indicators or Pre-Existing Chronic-Disease Indicators At or Above the 90th Percentile That Could Experience Truck Traffic Decreases

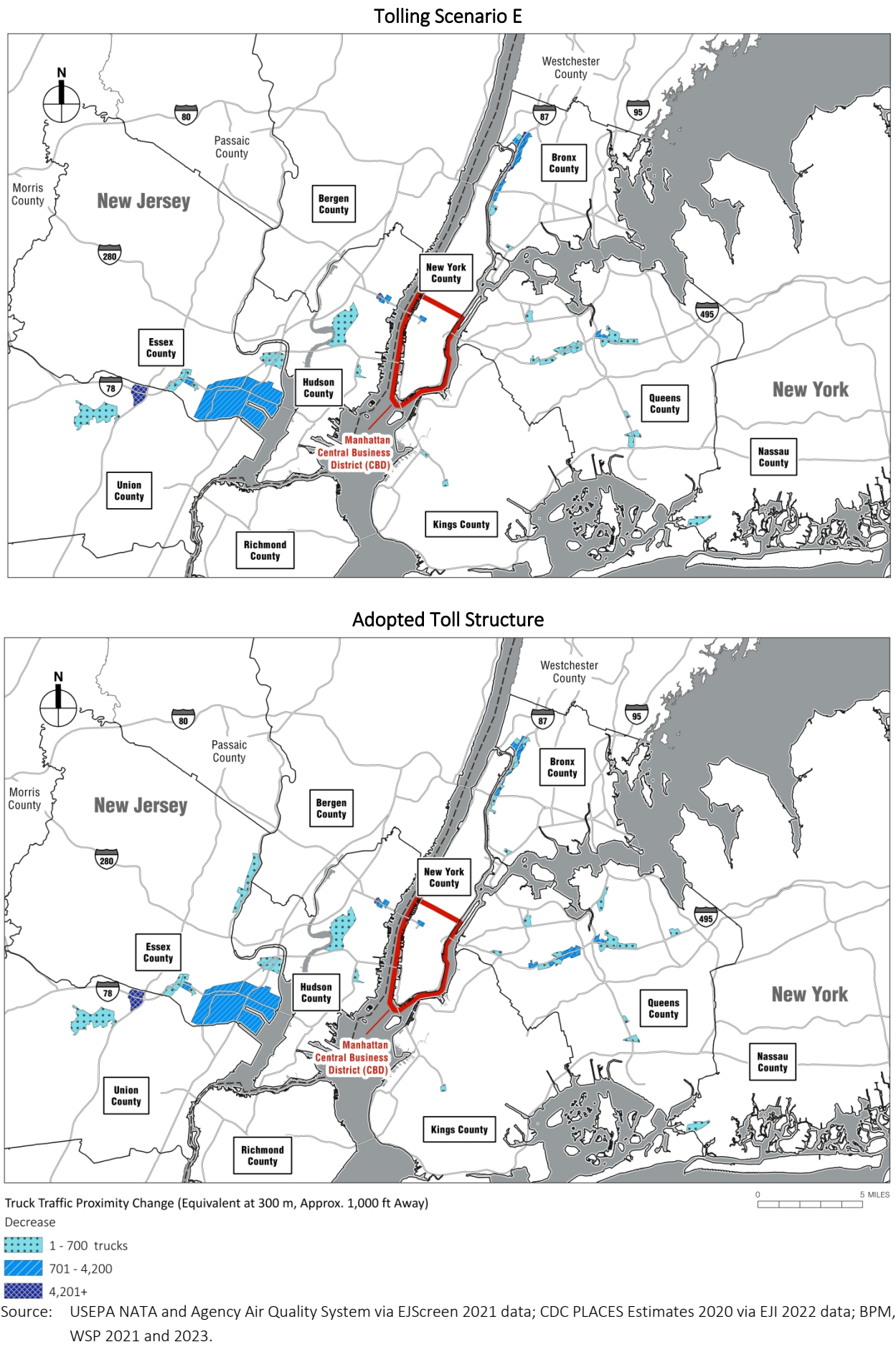
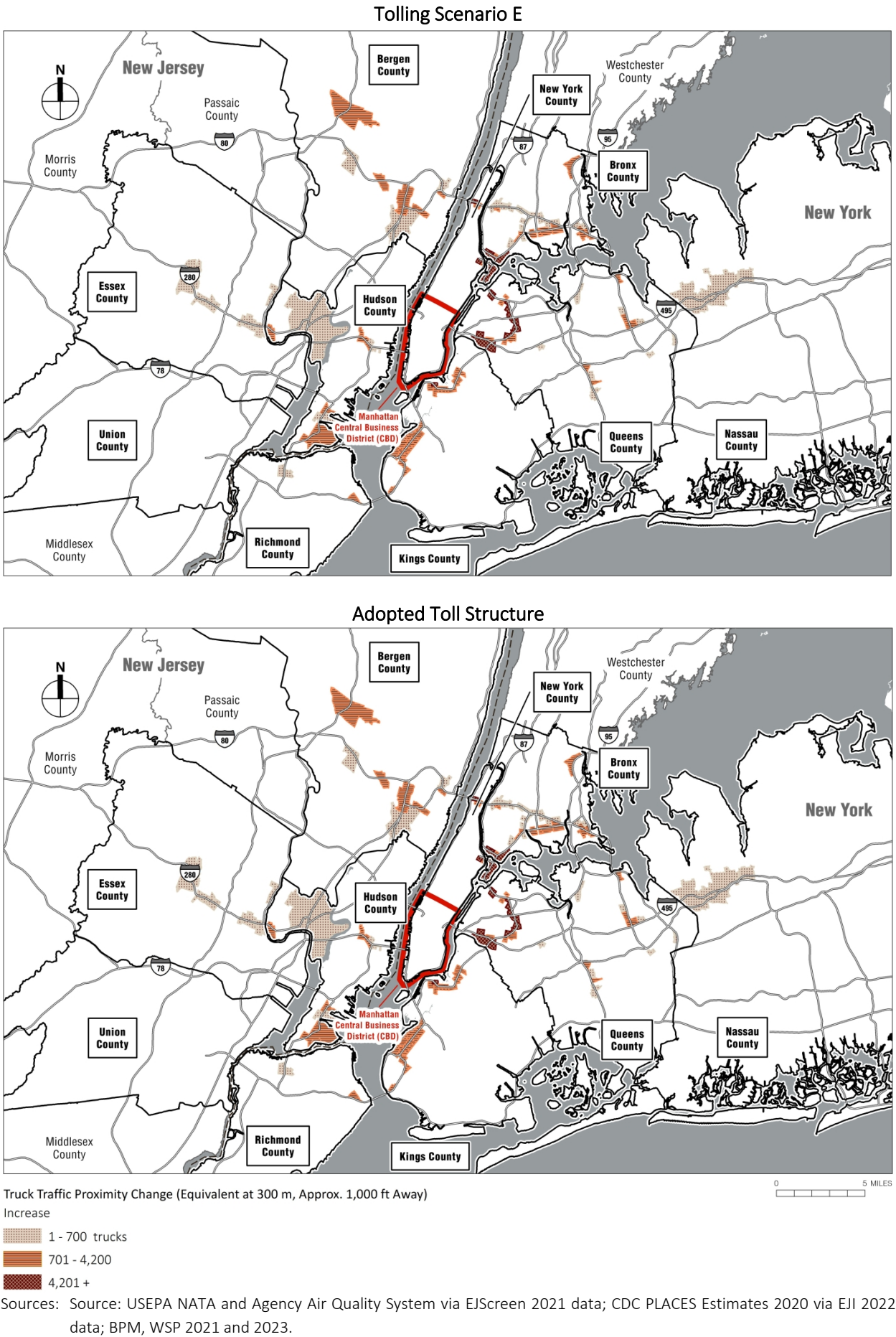


Figure 17.2 – Environmental Justice Census Tracts with Either Pre-Existing Pollutant Indicators or Pre-Existing Chronic-Disease Indicators At or Above the 90th Percentile That Could Experience Truck Traffic Increases



- **Location of Tracts and Communities with Potential Truck Traffic Effects:** The adopted toll structure would have small differences in the tracts and communities where potential truck diversion effects would occur from those described in the Final EA, as summarized in **Table 17.6**.
  - Three new “90 or 90” tracts with potential truck traffic proximity decreases in communities already identified with potential truck traffic proximity decreases (included in **Table 17.5**). These previously identified communities with an additional tract with potential truck-traffic proximity decreases are Flushing–Clearview (Queens County), Ridgewood–Forest Hills (Queens County), and Newark (Essex County).
  - Three new “90 or 90” communities identified with potential truck traffic proximity decreases (Bayside–Little Neck and Long Island City–Astoria, Queens County; Belleville, Essex County; see **Table 17.5**, which is a modification of Final EA Table 17D-14 with the adopted toll structure added). One community (Downtown–Heights–Slope/Park Slope, Kings County) identified for potential truck traffic proximity decreases under Scenario E is not identified under the adopted toll structure for potential truck traffic proximity decreases because this tract now has a potential truck traffic proximity increase. This tract has been removed from **Table 17.5**, is highlighted in **Table 17.7**, and is included in **Table 17.8**).
  - Three new tracts with potential truck traffic proximity increases in “90 or 90” communities identified in the Final EA (as highlighted in Table 17.7, included in **Table 17.8** and shown in **Figure 17.3**). These tracts are located (one each) in each of the following communities: High Bridge–Morrisania, Bronx County; Downtown–Heights–Slope/Downtown Brooklyn–Fort Greene, Kings County; and Southwest Queens, Queens County. In these tracts, modeling indicates potential truck traffic proximity increases ranging from 0.69 to 1.05 daily trucks per meter distance. These values are well below the average increase of 4.99 daily trucks per meter distance under the adopted toll structure among “90 or 90” tracts with potential increases. These values are also well below the average 7.50 increase among “90 or 90” tracts under Final EA Scenario E. These three tracts would benefit from the regional mitigation measures of expanding the NYC Clean Trucks and NYCDOT Off-Hours Delivery Programs. Note that these three new “90 or 90” tracts include the new “90 and 90” tract in High Bridge–Morrisania.
  - One fewer “90 or 90” community identified for regional mitigation (Ridgewood–Forest Hills, Queens County, identified in **Figure 17.3**). **Table 17.8**, below, is a modified version of Final EA Table 17D-15 that describes the communities identified for regional mitigation with the adopted toll structure added. Under the adopted toll structure this community no longer has potential truck traffic effects.
  - One new “90 and 90” tract within the already identified High Bridge–Morrisania, Bronx County community identified for place-based mitigation along the Major Deegan Expressway; under Final EA Scenario E, modeling indicated a potential truck traffic proximity decrease of -0.41, whereas under the adopted toll structure, modeling indicates a potential truck traffic proximity increase of 0.94 (highlighted in Table 17.7, and included in Table 17.9 as well as in Figure 17.4, which is an updated version of Final EA Figure 17D-18 reflecting the adopted toll structure). No new “90 and 90” communities identified for place-based mitigation (as illustrated in **Table 17.9** with the adopted toll structure added, below).

- In the Final EA, Appendix 17D, Tables 17D-14, 17D-15, and 17D-17 depicted the baseline numbers of trucks traveling through or adjacent to these communities by including estimates of pre-existing truck AADT on some highways, as examples, under the No Action Alternative. The tables also described the potential change in truck volumes under Tolling Scenario E, and the percentage change of the AADT. The versions of those tables below (**Table 17.5**, **Table 17.8**, and **Table 17.9**, with the adopted toll structure added) present these truck-volume data as well.<sup>18</sup>

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<sup>18</sup> As noted in the Final EA, Appendix 17D, Section 17D-6.1.4., in some cases, nearby roadways will show decreases in truck AADT when truck traffic proximity increases, and vice versa. This occurs because of the distance weighting that is part of calculating changes in truck traffic proximity. A nearby roadway may show a net increase in truck traffic AADT, but the center of a census tract's population may be closer to a portion of the roadway with estimated decreases in truck volumes, meaning that exposure to emissions and truck traffic proximity decreases (footnote 102, p. 17D-50).



**Table 17.5 - Modified Final EA Table 17D-14. Environmental Justice Tracts and Communities That Could Experience Truck Traffic Proximity Decreases (Tolling Scenario E), With the Adopted Toll Structure ("90 or 90" Tracts and Communities)**

COUNTY	COMMUNITY	NUMBER OF TRACTS BY NUMBER OF POLLUTANT OR CHRONIC DISEASE BURDENS (90 <sup>TH</sup> PERCENTILE)		HIGHWAY	DAILY TRUCK VOLUME					
		FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
					NO ACTION (AADT)*	CHANGE (AADT)	CHANGE (%)	NO ACTION (AADT)*	CHANGE (AADT)	CHANGE (%)
Bronx, NY	Crotona–Tremont	5	5	Major Deegan Expwy	15,042	-643	-4%	15,042	-372	-2%
	Fordham–Bronx Park	1	1	Major Deegan Expwy	15,024	-686	-5%	15,024	-414	-3%
	High Bridge–Morrisania	3	2	Major Deegan Expwy	11,872	-165	-1%	11,803	-195	-2%
	Hunts Point–Mott Haven**	1	1	Bruckner Expwy	5,624	277	5%	5,624	263	5%
	Kingsbridge–Riverdale	7	7	Major Deegan Expwy	14,679	-595	-4%	14,679	-331	-2%
Kings, NY	Borough Park***	1	1	Ocean Pkwy	5,689	-11	-0.2%	5,689	64	1%
New York, NY	Chelsea–Clinton	1	1	Lincoln Tunnel	2,069	-155	-7%	2,069	-273	-13%
Queens, NY	Bayside–Little Neck		1	Long Island Expwy	Community does not have tracts with potential truck-traffic decreases adjacent to Long Island Expwy			18,049	-2	-0.01%
	Flushing–Clearview†	2	3	Long Island Expwy	11,340	-290	-3%	11,340	-371	-3%
				Whitestone Expwy	Community does not have tracts with potential truck-traffic decreases adjacent to Whitestone Expwy			7,929	174	2%
	Fresh Meadows	2	2	Long Island Expwy	11,542	-283	-2%	11,542	-357	-3%
	Jamaica	2	2	Van Wyck Expwy	7,487	-104	-1%	7,487	-60	-1%
	Long Island City–Astoria		1	Brooklyn Queens Expwy	Community does not have tracts with potential truck-traffic decreases adjacent to Brooklyn Queens Expwy			9,634	1,293	13%

COUNTY	COMMUNITY	NUMBER OF TRACTS BY NUMBER OF POLLUTANT OR CHRONIC DISEASE BURDENS (90 <sup>TH</sup> PERCENTILE)		HIGHWAY	DAILY TRUCK VOLUME					
		FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
					NO ACTION (AADT)*	CHANGE (AADT)	CHANGE (%)	NO ACTION (AADT)*	CHANGE (AADT)	CHANGE (%)
				Long Island Expwy	Community does not have tracts with potential truck-traffic decreases adjacent to Long Island Expwy			3,115	-157	-5%
	Ridgewood–Forest Hills	5	6	Long Island Expwy	12,250	-153	-1%	12,250	-339	-3%
	Southwest Queens	2	1	Van Wyck Expwy	5,039	-102	-2%	7,049	-132	-2%
	West Queens	6	6	Brooklyn Queens Expwy East	2,303	-64	-3%	2,303	-28	-1%
				Long Island Expwy	12,443	-170	-1%	12,443	-338	-3%
Essex, NJ	Belleville		1	McCarter Hwy (NJ Rt 21)	Community does not have tracts with potential truck-traffic decreases adjacent to McCarter Hwy			5,499	-4	-0.1%
	Newark	9	10	I-78	13,535	-547	-4%	13,535	-425	-3%
				I-95	12,573	-124	-1%	12,573	-25	-0.2%
				McCarter Hwy	5,154	-23	-0.4%	5,168	-16	-0.3%
				US 1-9	7,274	-30	-0.4%	7,274	-74	-1%
				US 22	5,018	-24	-0.5%	5,018	-31	-1%
Hudson, NJ	Jersey City	2	2	I-78	1,538	-580	-38%	1,538	-361	-23%
				Pulaski Skwy	4,622	-142	-3%	4,622	-5	-0.1%
	Union City	3	3	NJ 495	7,813	-703	-9%	7,813	-863	-11%
Union, NJ	Union	2	2	I-78	8,569	-310	-4%	8,569	-239	-3%
				US 22	4,289	-1	-0.03%	4,289	-3	-0.1%
Nassau, NY	Hempstead	1	1	Nassau Expwy	1,708	-2	-0.1%	1,708	-1	-0.1%

Source: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

Notes:

Results are not shown for Downtown–Heights–Slope (Park Slope) because no tracts with potential truck-traffic proximity decreases appeared in this community under the adopted toll structure.

- \* In some cases, specific tracts with potential traffic increases along a certain highway and within a community and differ between Scenario E, Scenario G, and the adopted toll structure. In these cases, the “No Action” AADT will differ because the section of the highway analyzed differs.
- \*\* Under Tolling Scenario E (as noted in Final EA Table 17D-14) as well as the adopted toll structure, truck traffic proximity is predicted to decrease in Census Tract 27.02, Bronx County, even though AADT on this highway shows a net increase. The center of the tract's population is near a portion of the highway where modeling indicates that truck traffic could decrease.
- \*\*\* Under the adopted toll structure, Truck traffic proximity decreases in Census Tract 494, Kings County, even though AADT on this highway shows a net increase. Though the highway adjacent to the tract is predicted to see increases in truck traffic, the center of the tract's population is near a portion of the highway where modeling indicates that truck traffic could decrease.
- † Under the adopted toll structure, Truck traffic proximity decreases in Census Tract 889.01, Queens County, even though AADT on the Whitestone Expwy shows a net increase. The center of the tract's population is near a portion of the highway where modeling indicates that truck traffic could decrease.

**Table 17.6 - Summary of Environmental Justice Tracts and Communities That May Need Mitigation (Tolling Scenario E), with the Adopted Toll Structure**

TOPIC	LOCATION	DATA SHOWN IN TABLE	FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE
Increases in truck traffic, as a result of traffic diversions, in communities already overburdened by preexisting air pollution and chronic diseases	<b>90 AND 90 (Place-Based)</b>	<b>Total Communities</b>	<b>13*</b>	<b>13*</b>
		<b>Total Tracts</b> (Black indicates new tracts in already-identified communities, grey in parentheses are tracts that were removed compared to the Final EA)	<b>55</b>	<b>56</b> 1 additional tract in High Bridge-Morrisania, Bronx, NY (truck traffic proximity increase of 0.94 trucks per meter distance)
		<b>Communities Added (Relative to Final EA Tolling Scenario E)</b>	--	None
		<b>Communities Removed (Relative to Final EA Tolling Scenario E)</b>	--	None
Increases in truck traffic, as a result of traffic diversions, in communities already overburdened by preexisting air pollution or chronic diseases	<b>90 OR 90 (Regional)</b>	<b>Total Communities</b>	<b>38</b>	<b>37</b>
		<b>Total Tracts</b> (Black indicates new tracts in already-identified communities, grey in parentheses are tracts that were removed compared to the Final EA)	<b>154</b>	<b>151</b> 1 additional tract in High Bridge-Morrisania, Bronx, NY (same as "90 AND 90" tract above; truck traffic proximity increase of 0.94 trucks per meter distance) 1 additional tract in Downtown Brooklyn-Fort Greene / Downtown-Heights-Slope, Kings, NY (truck traffic proximity increase of 0.69 trucks per meter distance) 1 additional tract in Southwest Queens, Queens, NY (truck traffic proximity increase of 1.05 trucks per meter distance) (1 less tract in Bayside-Little Neck, Queens, NY) (1 less tract in Flushing-Clearview, Queens, NY) (1 less tract in Long Island City-Astoria, Queens, NY) (1 less tract in Ridgewood-Forest Hills, Queens) (1 less tract in Southeast Queens, Queens, NY) (1 less tract in Newark, Essex, NJ)
		<b>Communities Added (Relative to Final EA Tolling Scenario E)</b>	--	None



TOPIC	LOCATION	DATA SHOWN IN TABLE	FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE
		<b>Communities Removed (Relative to Final EA Tolling Scenario E)</b>	--	1 (Ridgewood-Forest Hills, Queens, NY is removed)

Source: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

Notes:

This table summarizes results analogous to those found in Final EA Tables 17D-15 and 17D-17 in Appendix 17D. Detailed versions of those tables with the adopted toll structure added are provided later in this section of the reevaluation.

- \* Final EA Table 17D-17 for Tolling Scenario E grouped the 13 identified communities into 11 table rows: High Bridge – Morrisania was grouped with “Crotona–Tremont” in one line because tracts in both communities would have potential effects from truck traffic on the Cross Bronx Expressway. Hunts Point–Mott Haven and Pelham–Throgs Neck were also grouped in one line because tracts in both communities would have potential effects from truck traffic on the Bruckner Expressway. City of Orange, East Orange, and Newark were also grouped in one line because tracts in these three communities would have potential effects from truck traffic on I-280. Finally, Table 17D-17 did not show Tract 3009 in North Hempstead, Nassau County. As noted, “[p]otential truck volume increases and decreases on roadways within the tract would ultimately cancel each other out and result in no change of truck traffic proximity for the residential populations within the tract.”

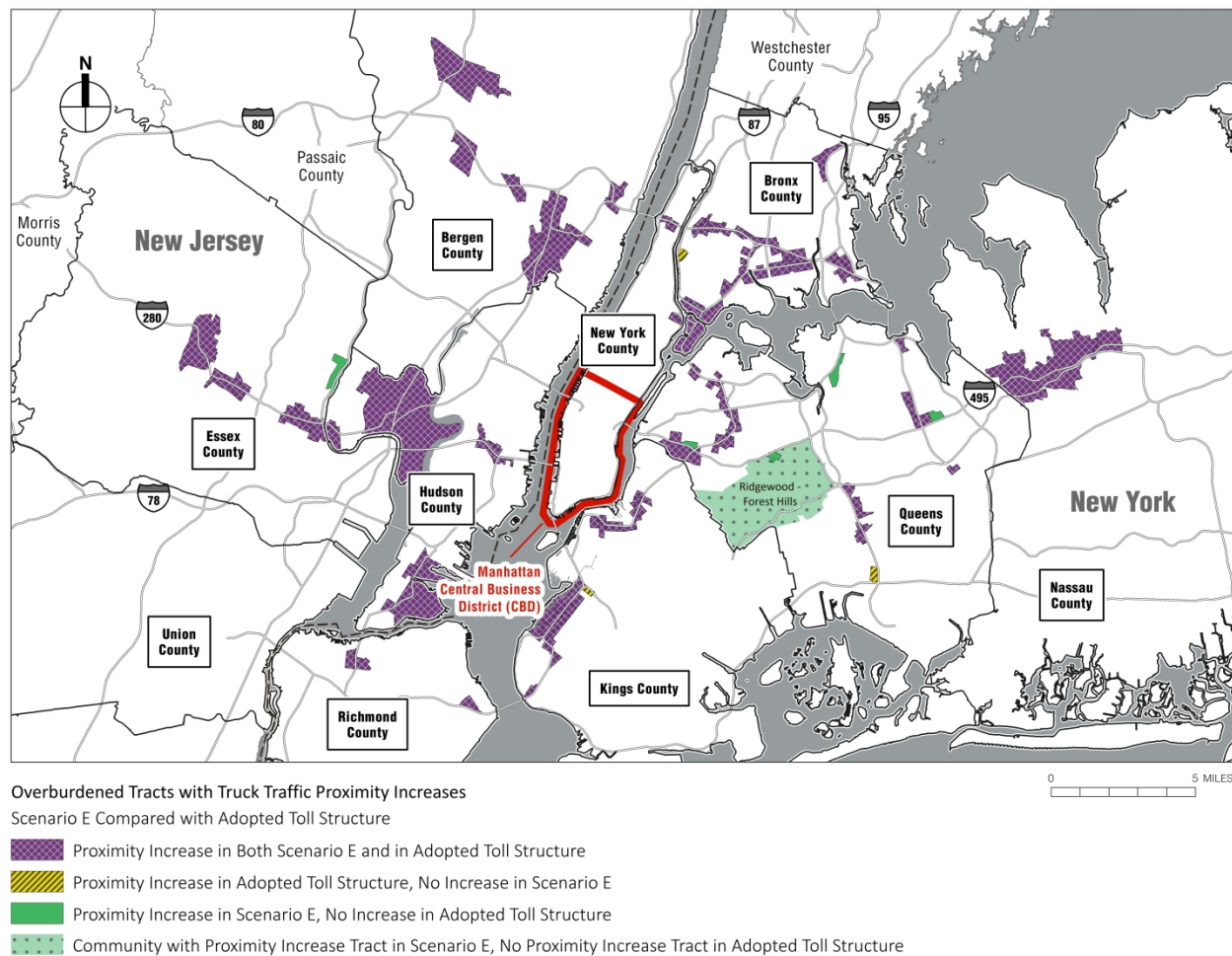
**Table 17.7 - Change in Truck Traffic Proximity for Overburdened Environmental Justice-Designated Tracts That Would Have Increases Under the Adopted Toll Structure But Decreases in Final EA Tolling Scenario E**

LOCATION	TRUCK TRAFFIC PROXIMITY CHANGE		HIGHWAY	DAILY TRUCK VOLUME				
	FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		NO ACTION (AADT)	FINAL EA SCENARIO E		ADOPTED TOLL STRUCTURE	
					Change (AADT)	Change (%)	Change (AADT)	Change (%)
Tract 189, Bronx, NY (High Bridge–Morrisania, 90 AND 90)	-0.41	0.94	Major Deegan Expwy	14,106	128*	1%*	240	2%
Tract 143, Kings, NY (Downtown–Heights–Slope / Park Slope, 90 OR 90)	-0.60	0.69	Prospect Expwy	4,509	-12	-0.3%	43	1%
Tract 814, Queens, NY (Southwest Queens, 90 OR 90)	-0.40	1.05	Van Wyck Expwy	4,272	-126	-3%	13	0.3%

Source: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJSscreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

\* Under Tolling Scenario E, truck traffic proximity would decrease in this census tract even though AADT would increase, because the center of its population is near a portion of the highway where modeling indicates that non-truck traffic could decrease.

Figure 17.3 - "90 or 90" Environmental Justice Census Tracts and Communities That Could Experience Truck Traffic Increases, Tolling Scenario E Compared with the Adopted Toll Structure



Source: USEPA NATA and Agency Air Quality System via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

**Table 17.8 - Modified Final EA Table 17D-15. Environmental Justice Tracts and Communities That May Need Mitigation (Tolling Scenario E), With the Adopted Toll Structure ("90 or 90" Tracts and Communities)**

COUNTY	COMMUNITY	NO. OF TRACTS WITH AT LEAST ONE PRE-EXISTING POLLUTANT OR CHRONIC DISEASE BURDEN (90 <sup>TH</sup> PERCENTILE)		HIGHWAY	DAILY TRUCK VOLUME					
		FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
					NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)	NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)
Bronx, NY	Crotona–Tremont	16	16	Cross Bronx Expwy	21,819	168	1%	21,819	237	1%
	High Bridge–Morrisania	4	5	Cross Bronx Expwy	21,819	168	1%	21,819	237	1%
				Major Deegan Expwy	Community does not have tracts with potential truck-traffic increases adjacent to Major Deegan Expwy			14,106	240	2%
	Hunts Point–Mott Haven	11	11	Major Deegan & Bruckner Expwys	7,618	874	11%	7,618	695	9%
				Approach to RFK Bridge	9,868	1,339	14%	9,868	1,100	11%
	Northeast Bronx	1	1	New England Thruway	13,640	191	1%	13,640	106	1%
	Pelham–Throgs Neck	17	17	Cross Bronx Expwy Ext.	9,580	398	4%	9,580	388	4%
				Throgs Neck Expwy	4,194	50	1%	4,194	73	2%
				Bruckner Expwy	5,624	277	5%	5,624	263	5%
Kings, NY	Bensonhurst–Bay Ridge	2	2	Gowanus Expwy	8,328	495	6%	8,328	270	3%
	Downtown–Heights–Slope (Downtown Brooklyn–Fort Greene)*	8	9	Brooklyn Queens Expwy	14,107	891	6%	14,107	378	3%
				Prospect Expwy	Community does not have tracts with potential truck-traffic increases adjacent to Prospect Expwy			5,942	51	1%
	Greenpoint (South Williamsburg)**	7	7	Brooklyn Queens Expwy	15,762	878	6%	15,762	452	3%
	Sunset Park	15	15	Gowanus Expwy	10,015	632	6%	10,015	290	3%
New York, NY	East Harlem	2	2	Approach to RFK Bridge	1,513	1,556	103%	1,513	423	28%
	Randall’s Island***	1	1	RFK Bridge on Randall’s Island	12,432	3,170	25%	12,432	1,913	15%

COUNTY	COMMUNITY	NO. OF TRACTS WITH AT LEAST ONE PRE-EXISTING POLLUTANT OR CHRONIC DISEASE BURDEN (90 <sup>TH</sup> PERCENTILE)		HIGHWAY	DAILY TRUCK VOLUME					
		FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
					NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)	NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)
	Washington Heights–Inwood	3	3	Trans-Manhattan Expwy	17,370	385	2%	17,370	338	2%
Queens, NY	Bayside–Little Neck	5	4	Clearview Expwy	12,029	485	4%	12,029	480	4%
	Flushing–Clearview	2	1	Clearview Expwy	14,332	631	4%	14,332	602	4%
				Whitestone Expwy	7,929	455	6%	Community does not have tracts with potential truck-traffic increases adjacent to Whitestone Expwy		
	Jamaica	4	4	Van Wyck Expwy	8,876	303	3%	8,876	50	1%
	Long Island City–Astoria	7	6	Grand Central Pkwy	9,935	2,522	25%	9,935	1,447	15%
				Brooklyn Queens Expwy	12,572	1,982	16%	12,572	1,308	10%
				Long Island Expwy	5,247	260	5%	5,247	-96	-2%
	Southeast Queens <sup>†</sup>	2	1	Clearview Expwy	7,649	59	1%	7,649	67	1%
	Southwest Queens <sup>††</sup>	2	3	Van Wyck Expwy	7,264	12	0.2%	5,999	66	1%
	West Queens	9	9	Long Island Expwy	5,247	260	5%	5,247	-96	-2%
				Brooklyn Queens Expwy	8,657	1,696	20%	8,657	1,024	12%
Richmond, NY	Port Richmond	2	2	MLK Expwy	3,023	339	11%	3,023	84	3%
	Stapleton–St. George	1	1	Staten Island Expwy	8,625	763	9%	8,625	363	4%
Bergen, NJ	Fort Lee	2	2	I-95	21,427	368	2%	21,427	438	2%
				N Bergen Blvd (US-46)	6,499	312	5%	6,499	162	2%
				NJ Rt 4	12,413	35	0.3%	12,413	105	1%
	Hackensack	1	1	I-80	15,034	208	1%	15,034	68	0.5%
	Ridgefield Park Village	1	1	US-46	3,202	195	6%	3,202	44	1%
	Palisades Park	1	1	US-1-9-46	2,854	344	12%	2,854	70	2%
	Lodi	1	1	I-80	9,976	164	2%	9,976	211	2%

COUNTY	COMMUNITY	NO. OF TRACTS WITH AT LEAST ONE PRE-EXISTING POLLUTANT OR CHRONIC DISEASE BURDEN (90 <sup>TH</sup> PERCENTILE)		HIGHWAY	DAILY TRUCK VOLUME					
		FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
					NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)	NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)
				NJ Rt 17	9,387	345	4%	9,387	258	3%
				US-46	4,420	13	0.3%	4,420	8	0.2%
	Paramus	1	1	NJ Rt 17	8,890	335	4%	8,890	201	2%
				NJ Rt 4	7,300	3	0.04%	7,300	-42	-1%
	Ridgefield	1	1	I-95	10,644	266	2%	10,644	66	1%
				US-9	2,905	48	2%	2,905	29	1%
Essex, NJ	East Orange	1	1	I-280	5,688	115	2%	5,688	137	2%
	Newark	6	5	McCarter Hwy (NJ Rt 21)	6,381	17	0.3%	Community does not have tracts with potential truck-traffic increases adjacent to McCarter Hwy (NJ Rt 21)		
				I-280	6,425	117	2%	6,425	138	2%
	West Orange	1	1	I-280	5,618	116	2%	5,618	136	2%
	City of Orange	2	2	I-280	5,722	115	2%	5,722	135	2%
Hudson, NJ	Bayonne	4	4	NJ Rt 440	7,432	443	6%	7,432	238	3%
	Harrison	2	2	I-280	6,951	118	2%	6,951	155	2%
	Jersey City	5	5	Tonnelle Ave	4,461	540	12%	4,461	479	11%
				NJ Rt 139	3,571	207	6%	3,571	341	10%
	Kearny	1	1	I-280	6,954	107	2%	6,954	154	2%
				NJ Rt 9	11,481	359	3%	11,481	260	2%
Nassau, NY	North Hempstead	2	2	Long Island Expwy	7,744	3	0.04%	7,744	3	0.04%

Source: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

Notes:

Results are not shown for Ridgewood–Forest Hills because no tracts with potential truck-traffic proximity increases appeared in this community under the adopted toll structure.

In the Final EA, No Action truck AADT and Tolling Scenario E truck AADT change were miscalculated for a few portions of highways described in Tables 17D-15. This table includes corrected values. These corrections do not change the conclusions of the Final EA, as potential truck-traffic proximity increases of any magnitude were used to identify tracts and communities for potential effects and mitigation.

- \* As noted in Final EA, Appendix D to Appendix 17D, Part of the Downtown–Heights–Slope UHF neighborhood but labelled “Downtown Brooklyn-Fort Greene” to further specify location.
- \*\* As noted in Final EA, Appendix D to Appendix 17D, Part of the Greenpoint UHF neighborhood, but labeled as “South Williamsburg” to further specify location.
- \*\*\* As noted in Final EA, Appendix D to Appendix 17D, part of the East Harlem UHF neighborhood, but labeled as “Randall’s Island” to further specify location.
- † Under Tolling Scenario E (as noted in Final EA Tables 17D-10 and 17D-15), Census Tract 1571.02, Queens County, a truck traffic proximity increase is predicted due to an increase of less than 1 truck per day on a Cross Island Parkway service road under Tolling Scenario E; the tract does not have potential truck-traffic proximity increases under the adopted toll structure.
- †† No Action AADT differs between Tolling Scenario E and adopted toll structure on the Van Wyck Expwy because an additional tract with potential truck-traffic proximity increases under adopted toll structure extends the length of the highway along which the No Action AADT was measured.

**Table 17.9 - Modified Final EA Table 17D-17. Environmental Justice Tracts and Communities That Would Merit Place-Based Mitigation (Scenario E), With the Adopted Toll Structure ("90 and 90" Tracts and Communities)**

COUNTY	MAP MARKER	COMMUNITY	NO. OF TRACTS WITH AT LEAST ONE PRE-EXISTING POLLUTANT AND CHRONIC DISEASE BURDEN		HIGHWAYS	DAILY TRUCK VOLUME					
			FINAL EA SCENARIO E	ADOPTED TOLL STRUCTURE		FINAL EA SCENARIO E			ADOPTED TOLL STRUCTURE		
						No Action (AADT)	Change (AADT)	Change (%)	No Action (AADT)	Change (AADT)	Change (%)
Bronx, NY	1	High Bridge–Morrisania and Crotona–Tremont	18	18	Cross Bronx Expwy	21,819	168	0.8%	21,819	237	1.1%
			0	1	Major Deegan Expwy	Community does not have tracts with potential truck traffic increases adjacent to Major Deegan Expwy			14,106	240	1.7%
	2	Hunts Point–Mott Haven/Pelham–Throgs Neck	14	14	Bruckner Expwy	5,624	277	4.9%	5,624	263	4.7%
	3	Hunts Point–Mott Haven	3	3	Major Deegan & Bruckner Expwys	7,618	874	11.5%	7,618	695	9.1%
			1*	1*	Approach to RFK Bridge	9,868	1,339	13.6%	9,868	1,100	11.1%
	4	Pelham–Throgs Neck	1	1	Throgs Neck Expwy	4,194	50	1.2%	4,194	73	1.7%
			1	1	Cross Bronx Expwy Ext.	9,580	398	4.2%	9,580	388	4.1%
5	Northeast Bronx	1	1	New England Thruway	13,640	191	1.4%	13,640	106	0.8%	
New York,	6	East Harlem	2	2	RFK Bridge Approach at E 125th St	1,702	1,924	113.0%	1,702	672	39.5%
	7	Randall's Island**	1	1	RFK Bridge on Randall's Island	12,432	3,170	25.5%	12,432	1,913	15.4%
Kings, NY	8	Downtown–Heights–Slope (Downtown Brooklyn–Fort Greene)***	3	3	Brooklyn Queens Expwy	14,107	891	6.3%	14,107	378	2.7%
	9	Greenpoint (South Williamsburg)†	4	4	Brooklyn Queens Expwy	15,870	853	5.4%	15,870	428	2.7%
Essex, NJ	10	Orange–East Orange–Newark	6	6	I-280	6,106	116	1.9%	6,106	137	2.2%
Bergen, NJ	11	Fort Lee	1	1	I-95/George Washington Bridge	14,768	195	1.3%	14,768	231	1.6%



Source: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates; USEPA NATA 2017 and Agency Air Quality System 2018 via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021 and 2023.

Notes:

As in Final EA Table 17D-17, this table lists the 13 identified communities under both Tolling Scenario E and the adopted toll structure into 11 rows. Census Tract 3009, Nassau County, not shown. As noted in Final EA, Table 17D-17, “closer examination indicates that this tract is shown with a potential increase in truck traffic proximity under Tolling Scenario E; though roadways passing through the tract have the potential to see decreases in truck traffic, the center of its population is near [a portion of] a roadway where modeling indicates that truck traffic could increase.”

In the Final EA, No Build truck AADT and Scenario E truck AADT change were miscalculated for a portion of a highway described in Table 17D-17. This table includes corrected values. These corrections do not change the conclusions of the Final EA, as potential truck-traffic proximity increases of any magnitude were used to identify tracts and communities for potential effects and mitigation.

- \* Census Tract 27.01, Bronx County, immediately north of junction between RFK Bridge approach and Bruckner Expwy; tract also included in row for Major Deegan & Bruckner Expwys above.
- \*\* As noted in Final EA, Appendix D to Appendix 17D, part of the East Harlem UHF neighborhood, but labeled as “Randall’s Island” to further specify location.
- \*\*\* As noted in Final EA, Appendix D to Appendix 17D, Part of the Downtown–Heights–Slope UHF neighborhood but labelled “Downtown Brooklyn-Fort Greene” to further specify location.
- † As noted in Final EA, Appendix D to Appendix 17D, Part of the Greenpoint UHF neighborhood, but labeled as “South Williamsburg” to further specify location.